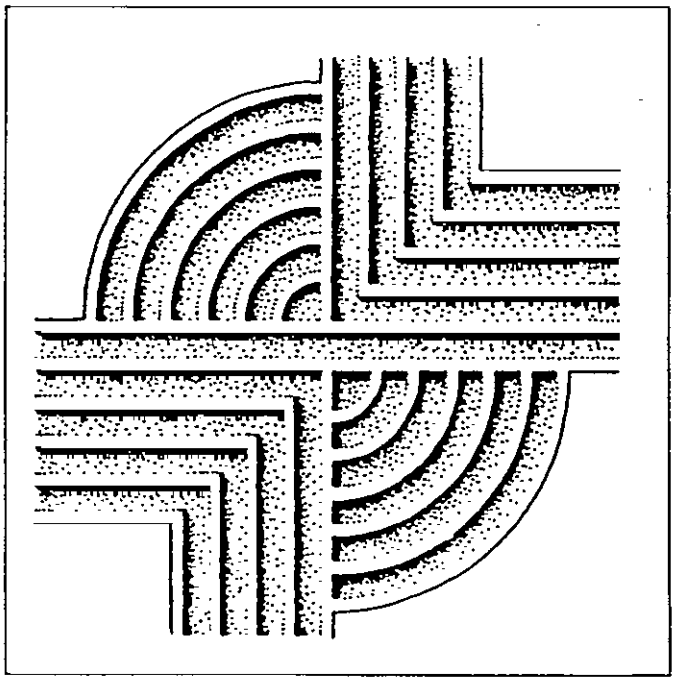
ARCHAEOLOGICAL SURVEY OF THE RSE CORPORATION FACILITY AREA TRACT, AIKEN COUNTY, SOUTH CAROLINA



RESEARCH CONTRIBUTION 101

ARCHAEOLOGICAL SURVEY OF THE RSR CORPORATION FACILITY AREA TRACT, AIKEN COUNTY, SOUTH CAROLINA

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Chicora Research Contribution 101

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ABSTRACT

This study represents a preliminary historical and intensive archaeological survey of the 440 acre RSR Corporation tract near the town of Montmorenci in Aiken County. The primary purpose of this investigation is to identify and assess the archaeological remains present in the tract, although secondary goals are to examine the relationship between prehistoric and historic settlement patterns and water sources.

As a result of this work nine archaeological sites were identified, primarily through the use of systematic shovel testing in wooded areas and pedestrian surveys in agricultural fields. Of the identified archaeological sites, two contained prehistoric components and nine contained historic components. Site 38AK504 is a standing structure located off the survey tract approximately 1000 feet to the east. One site (38AK511) is recommended as potentially eligible for inclusion on the National Register of Historic Places. This site represents a late nineteenth/early twentieth century tenant occupation containing a number of above ground features. They include a fieldstone chimney base, two foundation piers, and a well. The site is intact except for a small portion located adjacent to a gas pipeline right of way.

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ACKNOWLEDGEMENTS

This work was funded by the RSR corporation of Dallas, Texas. While the work was conducted in compliance with various national historic preservation requirements, we wish to thank Mr. H.R. Nulisch, Director of Purchasing, for his constant and unwavering support. Additional administrative support has been provided by Mr. Charles Cooper of Arthur D. Little, Inc.

A variety of others also assisted in our work, including the staff of the South Caroliniana Library, Aiken County Clerk of Court, Barnwell County Register of Mesne Conveyances, the Barnwell County Public Library, and the Thomas Cooper Map Repository. Mr. Fred DeMag of the Fort Jackson museum provided information on the military artifact from 38AK504.

Finally, we want to thank those who conducted the field investigations with us, Mr. Steve Corsini, Ms. Liz Pinckney, Ms. Darwin Ramsey-Styer, and Mr. Neils Taylor. Despite inclement weather throughout most of the project, they worked with diligence and professionalism. A large amount of the project's success is due to their efforts.

INTRODUCTION

Background

The investigation of the prospective RSR Corporation facility area tract was conducted by Ms. Natalie Adams of Chicora Foundation, Inc. for RSR Corporation, Dallas, Texas. The approximately 440 acre tract has a slight "S" shape and is bordered to the south by the Southern Railroad right of way and U.S. 78. The remaining boundaries are artificially established to satisfy the buffer zone and setback requirements of the South Carolina Department of Health and Environmental Control Location Standards (Chapter 61-104). To the west this boundary is roughly located about 600 feet southeast of a pipeline corridor. The northern boundary is approximately 1500 feet south of SC 302 and the western boundary is set to provide a depth of about 3000 feet throughout (Figures 1 and 2).

Within the property is a network of dirt logging roads which give access to most of the property areas. There are also a number of small intermittent drainages which flow primarily south to north. Most of the parcel near U.S. 278 consists of agricultural fields, while the northern portions of the tract consist of pine second growth forest and pine/mixed hardwood forest with a moderate to dense understory of herbaceous vegetation. Portions of the area have been logged within the past 20 years and the historical research reveals that the study area has been intensively cultivated, primarily for cotton during the late nineteenth and early twentieth centuries.

The survey tract represents the facility area for a prospective lead-acid battery recycling facility, regulated as a container storage unit by the South Carolina Department of Health and Environmental Control Location Standards. It is within this area that the modification activities and hazardous waste storage associated with the proposed facility would be undertaken. The developments would likely consist of additional road, utilities, and industrial building construction, as well as landscaping. There would likely also be additional land modifications within this area as a result of environmental protection measures, such as monitoring wells. Construction activities will include clearing, grubbing, and grading which would have the potential to damage or destroy archaeological resources if such resources are within the affected prtion of the tract.

The proposed project was reviewed by the client's environmental consultants, Arthur D. Little, Inc. and an intensive archaeological survey was recommended to comply with the South Carolina Department of Health and Environmental Control Location Standards. Chicora was interviewed for the proposed project on November 13 and was requested to submit a budgetary proposal for such a survey by RSR Corporation on November 23, 1992. A proposal was submitted on December 2, 1992. The investigations proposed by Chicora Foundation were approved by Mr. H.R. Nulisch of RSR Corporation on December 4, 1992.

These investigations incorporated a review of the site files at the South Carolina Institute of Archaeology and Anthropology. No previously recorded archaeological sites were within the survey boundaries. In addition, the South Carolina Department of Archives and History was contacted, requesting information on the identification of any National Register buildings, districts, structures, sites, or objects, or the presence of any structure surveys, in the vicinity of the 440 acre survey tract. No National Register sites on or in the vicinity of the facility area were found during this review. While an architectural survey of Aiken County had been undertaken in 1988, there were no recorded sites within the project boundaries. The few sites identified in the vicinity, such as site

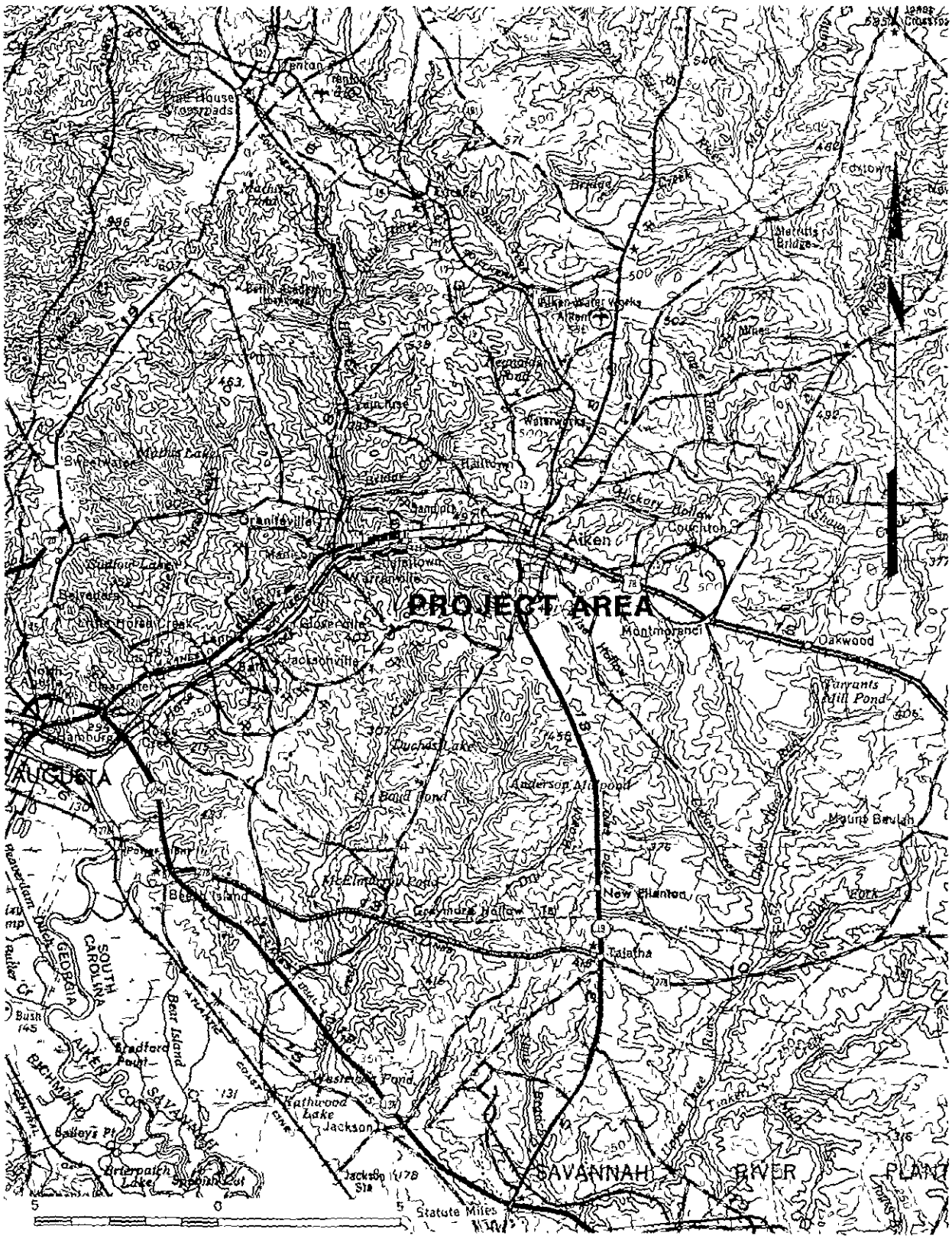

Figure 1. General vicinity of study area.

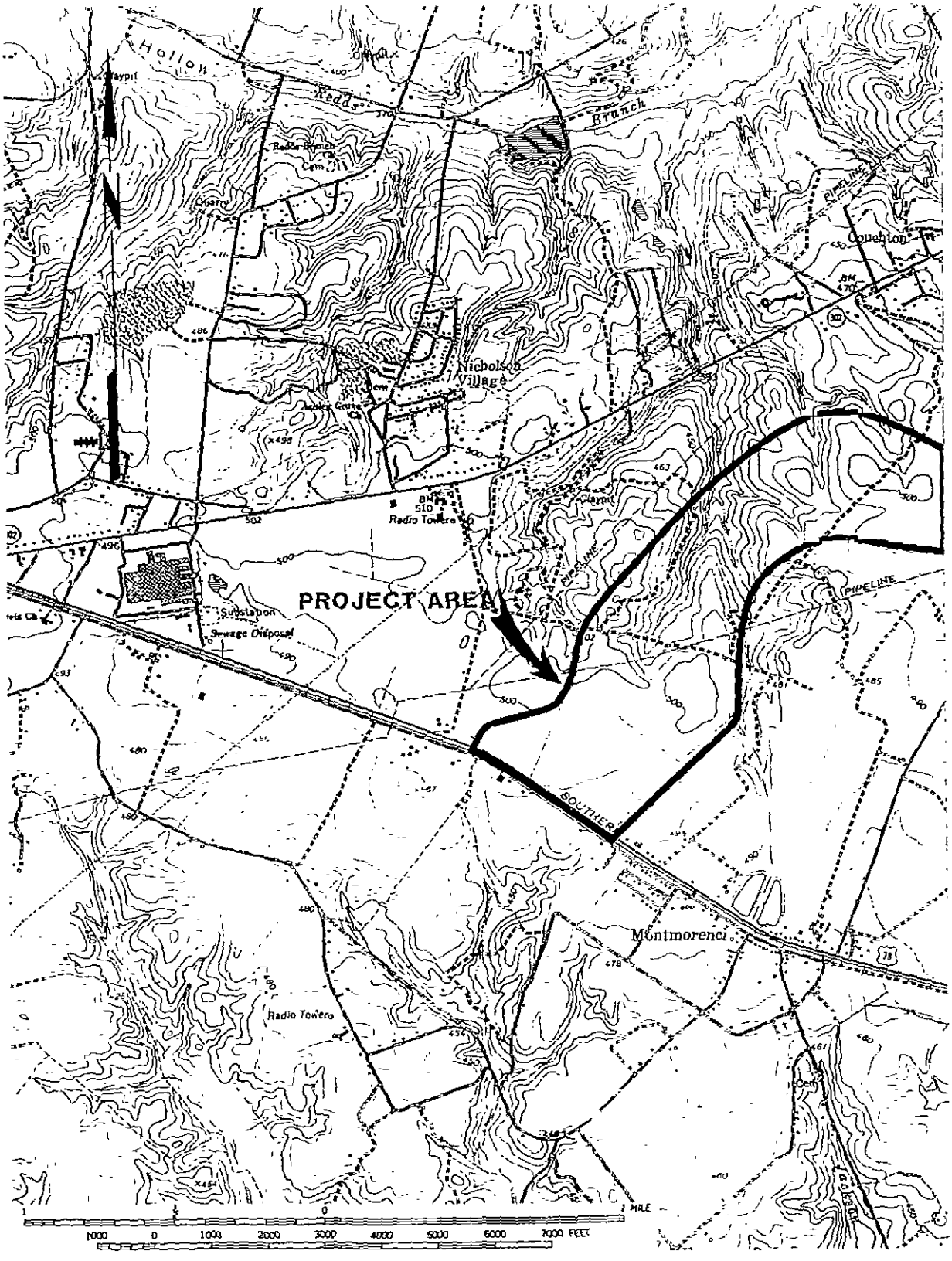

Figure 2. Portion of the Aiken USGS showing the study tract.

005 0025, are not considered by the State Historic Preservation Office to be eligible as a district (Tracy Powers, personal communication 1993).

This study is intended to provide a synopsis of the archaeological survey of the Aiken facility tract. The project included three person days of archival research, conducted by Dr. Michael Trinkley at the Aiken County Clerk of Court, Barnwell County Register of Mesne Conveyances, the Barnwell County Public Library, the South Caroliniana Library, and the Thomas Cooper Map Repository. In addition, secondary sources were consulted to place the historic research in a local and regional framework.

The field investigations were conducted January 4 through January 8, 1993 by Ms. Natalie Adams, Ms. Liz Pinckney, Ms. Darwin Ramsey-Styer, and Mr. Neils Taylor. This field work involved 160 person hours. Preliminary laboratory and the production of this management summary were conducted at Chicora's laboratories in Columbia, South Carolina on January 12 through January 14.

Arrangements are being made to curate the collections from these investigations at the South Carolina Institute of Archaeology and Anthropology. Cataloging will be conducted to the facility's standards at the completion of the study. Initial evaluation of the materials during washing reveals that none of the materials to be curated will require conservation treatments. All field records will be provided to the institution on pH neutral, alkaline buffered paper and the black and white photographic materials will be processed to archival permanence.

Goals

The primary goal of this study, of course, was to assist the client, RSR Corporation, comply with the South Carolina Department of Health and Environmental Control requirements to consider the impact of the project on archaeological and historical sites in the facility area. Consequently, the research design was essentially explorative and explicative, with the goal being to identify any evidence of prehistoric or historic sites which might be in the project area.

Once identification is achieved, however, it is essential to assess the significance of the sites. This involves determining whether any of the sites can be recommended as eligible for inclusion on the National Register of Historic Places. Butler suggests that the only valid measurement of significance is based on what he calls the "theoretical and substantive knowledge of the discipline" at any particular point in time (Butler 1987:821). Glassow (1977) has advocated an even more widely used approach which encourages the evaluation of sites through the use of five properties or features: site integrity, site clarity, artifactual variety, artifactual quantity, and the site's environmental context. These qualities stress properties of the archaeological record at the site, rather than the site's ability or potential to assist in providing data to limited, and possibly transient, research designs. Nevertheless, no matter how well preserved a site may be, if no serious questions can be developed, then it seems unlikely that it can be considered eligible.

It should be obvious that rather than being mutually exclusive approaches, both are essential to protect significant archaeological or historical sites. There must be research questions and the site must likely be able to answer those questions. Situations exist where there are important questions, but the site is too badly disturbed to allow research, or alternatively where the site is perfectly preserved, but offers no new data.

Previous research in this area of the state has been conducted primarily at the Savannah River Plant. Conveniently, the synthesis conducted as a result of the extensive work on the Savannah River Plant provides some very carefully developed research questions for future work. Those associated with prehistoric

sites include research in the area of geoarchaeological issues (the most relevant for the study area being lithic quarry locations), typological/chronological issues (all requiring large, well preserved prehistoric sites suitable for stratigraphic and/or radiometric analysis), and issues of cultural patterning and process (which, involving socio-political and subsistence, will also likely require major prehistoric sites) (Sassaman et al. 1990:329-332). The research into historic issues is somewhat more diffuse, concentrating on issues such as community history, frontier/backcountry development, land tenure, and social stratification (Brooks and Crass 1991:88-91). Regardless, some general research areas are presented and it is clear where research gaps are present.

Combined, these syntheses offer assistance to gauge the significance of sites identified during the current research in Aiken County. The presence of a detailed architectural survey also assists in the evaluation of historic sites since there is a major body of comparative architectural information.

Secondary goals for this project were more specifically to examine the relationship between site location, soil types, and topography expanding on work by Brooks and Crass (1991), Sassaman et al. (1990) and Taylor (1984).

Curation

Archaeological site forms have been filed with the South Carolina Institute of Archaeology and Anthropology. The field notes, photographic materials, and artifacts resulting from these investigations have been curated at the South Carolina Institute of Archaeology and Anthropology using their proveniencing system which consists of site number-site provenience number-artifact type number. All original records and duplicate copies were provided to the Institute in archival condition and will be maintained by that institution in perpetuity.

NATURAL SETTING

Physiography and Geology

Aiken County is located midway between the mountains and the coast. On the west the county is separated from Georgia by the Savannah River. To the north it is bordered by Edgefield and Saluda counties. To the east lays Lexington County with the bordered established by Chinquapin Creek and the North Edisto River. To the south Aiken County is bordered by Barnwell and Orangeburg counties. It is situated about 60 miles southwest of Columbia and 125 miles northwest of Charleston.

The topography varies dramatically as one moves from the Southern Coastal Plain in the southeastern portion of the county which is nearly level to gently sloping into the Carolina Sand Hills, which are characterized by more moderately steep topography. The Coastal Plain accounts for about 15% of the county, while the sandhills account for roughly 80%. In the northwestern corner of Aiken County there is a small area of Piedmont terrain, where the soils are dominantly sloping to very steep. Elevations in the county range from about 100 feet mean sea level (MSL) along the Savannah River to about 635 feet MSL in the northern portions (Rogers 1985:2).

The project area is found on a small "island" which may be characterized as either Coastal Plain or Sandhills, depending on the precise definition used. Given the dominance of the Sandhills in the immediate area, this study will largely discuss the effective environment within that context.

The Carolina Sandhills extends somewhat intermittently across the midlands of South Carolina, just below the fall line, in an irregular belt 5 to 30 miles wide. The fall line itself was sculpted by the strong erosion of rivers and streams passing from the hard crystalline bedrocks of the Piedmont into the loose, unconsolidated sands of the Coastal Plain. It is along this fall line where the rapidly descending rivers form shoals. The relationship of the Sandhills to these related physiographic features has been long debated, with a common explanation being that the Sandhills are the remnants of former beaches of the Cretaceous period about 130 million years ago (Barry 1980:97). Arguing against this, however, is the realization that in many areas (the survey tract included), the Sandhills are higher than the adjacent Piedmont. It seems more likely that this region represents the highly weathered, and discontinuous, remnants of the continental phase of the Tuscaloosa formation which dates back to the Mesozoic (Dukes 1961).

Regardless, these questions of geology have little impact on the use of the Sandhills by either prehistoric or historic people. More important to our understanding of past lifeways are the soils, climate, and flora of the Sandhills.

Soils

From a soils perspective excessively drained sands are found on 2 to 15% slopes and ridges. Well drained to moderately well drained soils with medium to fine textured, slightly compacted subsoils are found at the base of these slopes, although still on gently sloping topography. Excessively drained soils with loamy, compact subsoils are typically found on positions where the slopes break to meet the streams. Overall, inherent fertility and organic content of the soils are low. Leaching of plant nutrients is rapid and the soils are strongly acid.

In the project area the soils are broadly classified as the Faceville-

Fuquay-Marlboro Complex, although individual series include Dothan loamy sands, Faceville sandy loams, Fuquay sands, Marlboro loamy sands, and Orangeburg loamy sands on the southern half of the tract. These occur primarily in the cultivated fields bordering U.S. 78 and have slopes ranging from 0 to 6%, although most are under 2%. As a group, these soils are well drained and are found on ridgetops. They have surface A or Ap horizons about 0.8 foot thick consisting of grayish brown to brown loamy sands overlaying B horizons of light yellowish brown sands. In the northern portion of the project area are soils such as Lucy sands, Troup sands and the Vaucluse-Ailey complex. These soils are typically well drained sloping soils found on narrow ridges, side slopes, and breaks along drainageways. Often slopes will exceed 10%, ranging up to 15%. Finally, there are areas of Ochlochonee sandy loam and Vaucluse-Ailey complex found in draws and valley depressions. In these areas the A horizon may be only 0.5 foot of dark brown sandy loam overlying a light brown B horizon (Rogers 1985).

Aiken County is just outside the area studied by Trimble (1974), although adjacent Edgefield County was found to have lost over a foot of soil to erosion and the study area is part of the Cotton Plantation Area, recognized for its high Antebellum erosive land use with Postbellum continuation. This area, because of the nature of the soils, the type of agricultural products grown, and the form of tenancy common, suffered the greatest erosion in the South. Lowry (1934) found that while the level sandy soils of the region suffered little or no erosion, those associated with the steeper slopes, or along drainageways such as nearby Shaw Creek, suffered moderate sheet erosion. Based on this information it seems likely that while the southern portion of the study area has suffered little or no erosion, the northern area is likely to have been subjected to relatively high rates of erosion. This is especially true of those areas with slopes over 6% and those areas which have been logged. Logging alone can result in the erosion of 0.142 tons of soil per acre per year (compared to an undisturbed erosion rate of 0.006 tons per acre per year). When other factors associated with logging, such as logging roads, skid trails, and mechanical site preparation are added, the erosion rate can jump to over 10 tons per acre per year (United States Department of Agriculture 1980).

Climate

Moving to the climate, this portion of South Carolina is affected by the unusual convergence of three different weather systems. Those from the west tend to stall in the Appalachian Mountains, moist warm air masses from the Gulf of Mexico move into the area, and coastal systems come in off the Atlantic Ocean. The result, however, is far from unpleasant. In fact, Aiken has been known for at nearly 150 years as a health resort, because of its weather. The average winter temperature of 48° F and the average summer temperature of 79° F confirm the generally mild climate. There are 48 inches of annual precipitation, with over half falling in the growing season (Rogers 1985:1). In spite of this, Brooks and Crass suggest an element of uncertainty in the rainfall, with the amount occurring during the prime growing season of such crops as cotton or corn having been marginal. They suggest that this depressed "productivity relative to labor input" and encouraged "a broad spectrum subsistence base" (Brooks and Crass 1991:10).

Floristics

Perhaps the most noticeable feature about the Sandhills, however, is its characteristically xerophytic vegetation. Found where there is an extremely permeable layer of sandy soil which is leached of nutrients, this pattern is maintained by fire. Curiously, the vegetational pattern can quickly change, however, depending on such factors as the presence of clay subsoil and the depth of the water table. Barry remarks, for example:

> the complete transition from a xeric turkey oak barren to a hydric bay or pocosin can occur within a remarkably short distance, often

with very little ecotone (Barry 1980:100).

While Turkey Oak Barrens and Scrub Oak Barrens occur in the vicinity of the project area, the more dominant vegetation is the Xeric Pine-Mixed Hardwood, evidencing a slightly more mesic condition. However, it should be cautioned that the southern portion of the study tract is under cultivation, while the northern portion has been intensively logged and is in second growth. Consequently, the natural ecological conditions have been considerably altered. It seems likely, however, that this region historically would have been characterized by loblolly pines, perhaps red cedar, and post oak. Hickories would have included primarily the pignut hickory. The earliest plat of the survey area, in fact, indicates 10 pines, one hickory, and one gum (in a branch) as boundary trees. The presence of the gum is suggestive of infrequent fires and wet soils dominated by red bay, gum, and bald cypress. Understory plants, then as now, would include dogwood, sassafras, blackgum, and persimmon. Today, however, the topography is rather monotonous, with second growth pine and agricultural fields dominating the landscape.

RESEARCH STRATEGY AND METHODS

Introduction

As previously indicated, the primary goals of this study were to identify and assess the significance of archaeological sites within the 440 acre tract. Intimately linked with archaeological significance, was to determine whether identified sites could address research questions raised at the Savannah River Plant, such as, geoarchaeological issues (the most relevant for the study area being lithic quarry locations), typological/chronological issues (all requiring large, well preserved prehistoric sites suitable for stratigraphic and/or radiometric analysis), and issues of cultural patterning and process (which, involving socio-political and subsistence, will also likely require major prehistoric sites) (Sassaman et al. 1990:329-332). The research into historic issues is somewhat more diffuse, concentrating on community history, frontier/backcountry development, land tenure, and social stratification (Brooks and Crass 1991:88-91).

Archival Research

Consultations with the S.C. Institute of Archaeology and Anthropology, as previously mentioned, failed to identify any previously recorded archaeological or historical sites with the project boundaries. Similar consultations with the S.C. Department of Archives and History indicated that while an architectural survey had been conducted in 1988 by Preservation Consultants, Inc. only one structure (control number 005 0025) had been recorded in the project area. This structure is a one-story, front gable weatherboard frame house built in ca. 1885 with a shed porch. It is situated outside the facility area and consequently outside this survey tract. The structure, however, is not considered individually eligible for inclusion on the National Register by the S.C. Department of Archives and History, nor is it eligible as part of a larger district (Tracy Powers, personal communication 1993).

The project included three person days of archival research, conducted by Dr. Michael Trinkley at the Aiken County Clerk of Court, Barnwell County Register of Mesne Conveyances, the Barnwell County Public Library, the South Caroliniana Library, and the Thomas Cooper Map Repository. In addition, secondary sources were consulted to place the historic research in a local and regional framework.

Field Survey

The survey tract was initially stratified, based on factors such as slope, soils, and proximity to water sources, coupled with the data generated by the synthesis of previous archaeological research on the nearby Savannah River Plant. Three strata were defined, with three different levels of archaeological survey.

Areas of high archaeological probability were defined as those which incorporated ridges with high, well drained soils adjacent to drainages. Similar to the well-defined Piedmont pattern of prehistoric site locations, it was felt that along the terrace edges or ridges there would be a relatively high potential of identifying prehistoric resources.

Virtually all of these areas would be found in the northern portion of the tract and would be wooded (Figure 3). Consequently, we proposed to conduct the archaeological survey using shovel tests at 100 foot intervals on transects spaced at 100 feet.

Areas of moderate archaeological probability are those best described as

the level, "lowland" or flat ridges found on the southern half of the survey tract. While these areas were not anticipated to be attractive to prehistoric groups (primarily because of their lack of elevation and absence of nearby water sources), they would be attractive to historic groups. Not only are these areas in close proximity to a historic road (modern U.S. 78, previously known as the Charleston Road) and historic railroad (originally the South Carolina Railroad bed), but the area would have been suitable for settlements from the colonial through early twentieth century.

These were known to be almost entirely cultivated and at the time of the survey represent good surface visibility (Figure 4). Consequently, in these areas the survey consisted of a pedestrian survey with transect lines (or more appropriately "lanes," spaced about 50 feet apart. Occasional shovel tests would be excavated to verify soil conditions and to test identified archaeological sites.

Areas of low archaeological probability are those found on ridge side slopes, in narrow drainageways, on eroded soils, and on poorly drained soils. Initially it was clear that much of the northern portion of the project consisted of soils with over a 6% slope (and many areas with a 10 to 15% slope). In addition, there were several small drainages which crossed through the tract. It was not, however, until the survey began that it also became clear just how extensive (and intensive) erosion was in the northern, logged portion of the study tract. In many areas the A horizon was no more than 0.3 foot, reflecting considerable truncation.

These low probability areas appeared to be unworthy of any intensive archaeological investigation, although a pedestrian survey (because of the dense woods) would gather little information. To be certain that the low probability criteria were appropriate, we determined to conduct shovel tests at 100 foot intervals on 100 foot transects over a 5% sample of the area. The areas would be selected both opportunitistically and judgementally, based both on accessibility and also with the desire to obtain a cross sample of the different types of areas. In addition to the shovel testing, we found that large segments of the low probability areas were crossed by dirt logging roads. These were essential in allowing access to all parts of the survey tract and were incorporated into a pedestrian survey as an additional "test" of the low probability determinations.

At all shovel tests the soil would be screened through ¼-inch mesh, with each test numbered sequentially by transect and area (Figure 9). Each shovel test would measure about 1 foot square and would normally be taken to a depth of at least 1 foot. All cultural remains would be collected, except for shell, mortar, and brick, which would be qualitatively noted in the field and discarded. Notes, including Munsell soil colors, would be maintained for profiles at any sites encountered.

If evidence of an archaeological site was identified, the testing interval would be decreased to 50 feet or less in order to more accurately establish boundaries. At all sites Chicora would establish site boundaries, collect sufficient information to complete or revise site forms, and would assess and justify site eligibility for inclusion on the National Register of Historic Places. This emphasis on shovel testing is required by the tract's extensive woods coverage, which was anticipated to severely restrict surface visibility.

All site locations were recorded using a Garmin GPS (global positioning system) in an autonomous mode with selective availability. As a result, it is estimated that horizontal accuracy during this project (based on comparing GPS calculated positions to known positions) was in the range of ± 20 meters. All UTM locations are Zone 17.

These field methods were executed with little deviation. Five areas of "high probability" were identified. No survey or contour map of the project

Figure 3. Wooded tract in northern facility survey area showing reduced visibility and evidence of logging.

Figure 4. Cultivated fields in southern facilty survey area.

area had been drafted by the developers at the time of the field work. The client did, however, provide us with rough project area boundaries on the USGS topographic map. Based on this USGS map, **Area 1** consisted of a broad level ridge at the northern or northeastern edge of the property and incorporated 72 acres. It was roughly bounded to the north and west by logging roads. A series of 142 shovel tests were placed on 16 transects. No archaeological remains were found in the area, possibly the result of heavy erosion and an absence of any nearby water source. **Area 2**, incorporating 19 acres, was situated west, across a drainage, from Area 1 and was bisected by a logging road. It's topography included a ridge nose and ridge saddle. A total of 36 shovel tests were excavated on 7 transects. No archaeological site were found in this area, again probably because of the erosion and absence of a permanent water source. **Area 3** was situated to the south of Areas 1 and 2, on a broad ridge. It was bounded to the west and south by logging roads and incorporated 12 acres. A series of 45 shovel tests on 5 transects failed to identify any archaeological sites. **Area 4** was situated immediately north of the cultivated fields encompassing a large ridge nose with intermittent drainages to the east and west. A series of 65 shovel tests on 6 transects were excavated over 23 acres. One isolated artifact (a whiteware ceramic) was identified on the northern edge of the ridge nose, 38AK511 was identified at the southern end of the area. **Area 5** consisted of two transects with 17 shovel tests over 7 acres immediately south of Area 4, representing an expansion of the ridge. Site 38AK508 was identified in this area. **Area 6**, approximately 10 acres, is situated at the western edge of the facility survey tract and is bounded by logging roads to the south and to a portion of the west. It incorporates a portion of a relatively high northeast-southwest oriented ridge. A total of 30 shovel tests were excavated on three transects. One site, 38AK512, was identified. **Area 7**, chosen for the 5% sample of a low probability area was situated west of Area 3. It incorporated east and west facing side slopes and a small, intermittent drainage. A series of six transects were laid in and 62 shovel tests were excavated. No cultural remains were identified.

Once in the field, portions of these "Areas" evidenced a relatively large amount of slope, and therefore were investigated by pedestrian survey. As a result many "fringes" of these high probability areas were not surveyed with intensive shovel tests.

As a result of the initial survey, a total of 45 formal transects were placed in the study area with a total of 397 shovel tests (not including additional tests excavated to examine site areas). Further, a series of 20 transects were walked in the plowed fields at the southern edge of the site, resulting in the discovery of sites 38AK504, 38AK505, 38AK506, 38AK507, 38AK509, and 38AK510 (discussed below).

Laboratory and Analysis Methods

The cleaning of artifacts and cataloging of the specimens was conducted at the Chicora laboratories in Columbia during January 1993. All artifacts except brass and lead specimens were wet cleaned. Brass and lead items were dry brushed and evaluated for further conservation needs. All artifacts were found to be in stable condition and no further treatment was needed.

As previously discussed, the materials have been accepted for curation by the South Carolina Institute of Archaeology and Anthropology and have been cataloged using that institution's accessioning practices. specimens were packed in plastic bags and boxed. Field notes were prepared on pH neutral, alkaline buffered paper and photographic materials were processed to archival standards. All original field notes, with archival copies, are also curated with this facility. All materials have been delivered to the curatorial facility.

Analysis of the collections followed professionally accepted standards with a level of intensity suitable to the quantity and quality of the remains. Prehistoric lithics were classified using common Carolina Piedmont typologies

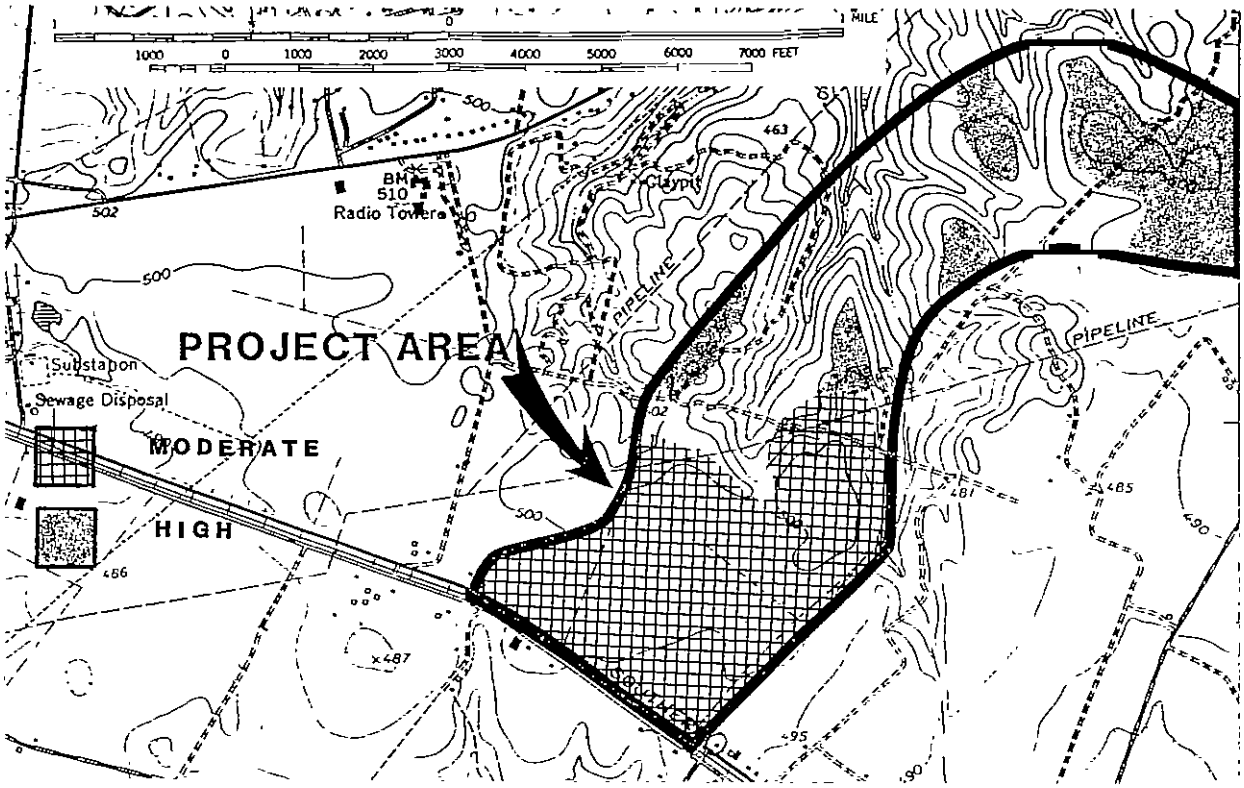

Figure 5. Areas of high, medium, and low probability.

(Coe 1964; South 1959). The temporal, cultural, and typological classifications of the historic remains follow Noel Hume (1970), Bartovics (1981), Miller (1980, 1991), Price (1970), and South (1977).

The analysis information was organized in a table format giving provenience information on eligible sites. Tables for mean ceramic dates were provided when more than one datable ceramic type was present. Pattern analyses were provided when sites produced more than 35 historic artifacts.

PREHISTORIC AND HISTORIC OVERVIEW

Previous Research

Of the 85 reports concerning Aiken County listed by Derting et al. (1991), nearly 24% (n=20) are the result of relatively small or at least constrained survey associated with highway projects, while an additional 30 studies (35%) are associated with the on-going archaeological and historical research for the Department of Energy at the Savannah River Plant. Other major "themes" in the archaeological research of Aiken County include work at Fort Moore, Coker Springs, and Silver Bluff. There appears to have been no work undertaken in the immediate area of the proposed RSR Corporation plant site.

Several previous published archaeological studies are available for the Aiken (and Barnwell) area of South Carolina to provide background, including the synthetic works from the Savannah River Plant, about 15 miles south of the project area. Sassaman et al. (1990) discuss the prehistory of the region, providing a framework of current research and site/settlement models, while Brooks and Crass (1991) provide a somewhat more modest effort for the historic period in the general vicinity. These studies should be consulted for additional information on the archaeological context of the project area.

Prehistoric Archaeology

The Paleo-Indian period, lasting from 12,000 to 8,000 B.C., is evidenced by basally thinned, side-notched projectile points; fluted, lanceolate projectile points; side scrapers; end scrapers; and drills (Coe 1964; Michie 1977). The Paleo-Indian occupation, while widespread, does not appear to have been intensive. Points usually associated with this period include the Clovis and several variants, Suwannee, Simpson, and Dalton (Goodyear et al. 1989:36-38).

At least 13 Paleo-Indian points have been found in the Aiken area, clustered along the Savannah River and its tributaries (Goodyear et al. 1989:33). This pattern of artifacts found along major river drainages has been interpreted by Michie to support the concept of an economy "oriented towards the exploitation of now extinct mega-fauna" (Michie 1977:124).

Unfortunately, little is known about Paleo-Indian subsistence strategies, settlement systems, or social organization. Generally, archaeologists agree that the Paleo-Indian groups were at a band level of society, were nomadic, and were both hunters and foragers. While population density, based on the isolated finds, is thought to have been low, Walthall suggests that toward the end of the period, "there was an increase in population density and in territoriality and that a number of new resource areas were beginning to be exploited" (Walthall 1980:30).

The Archaic period, which dates from 8000 to 2000 B.C., does not form a sharp break with the Paleo-Indian period, but is a slow transition characterized by a modern climate and an increase in the diversity of material culture. Associated with this is a reliance on a broad spectrum of small mammals, although the white tailed deer was likely the most commonly exploited mammal. The chronology established by Coe (1964) for the North Carolina Piedmont may be applied with little modification to the South Carolina Piedmont. Archaic period assemblages, characterized by corner-notched, side-notched, and broad stemmed projectile points, are common in the vicinity, although they rarely are found in good, well-preserved contexts.

In the Carolina Piedmont of South Carolina there is an increase in the

quantity of Early Archaic remains, probably associated with an increase in population and associated increase in the intensity of occupation. While Hardaway and Dalton points are typically found as isolated specimens along riverine environments, remains from the following Palmer phase are not only more common, but are also found in both riverine and interriverine setting. Kirks are likewise common in the Piedmont (Goodyear et al. 1989).

The two primary Middle Archaic phases found in the Carolina Piedmont are the Morrow Mountain and Guilford (the Stanly and Halifax complexes identified by Coe are rarely encountered). Our best information on the Middle Archaic comes from sites investigated west of the Appalachian Mountains, such as the work in the Little Tennessee River Valley. The work at Middle Archaic river valley sites, with their evidence of a diverse floral and faunal subsistence base, seems to stand in stark contrast to Caldwell's Middle Archaic "Old Quartz Industry" of Georgia and South Carolina, where axes, choppers, and ground and polished stone tools are very rare.

The Late Archaic is characterized by the appearance of large, square stemmed Savannah River projectile points (Coe 1964). These people continued the intensive exploitation of the uplands much like earlier Archaic groups. The bulk of our data for this period, however, comes from work in the Uwharrie region of North Carolina.

The Woodland period begins, by definition, with the introduction of fired clay pottery about 2000 B.C. along the South Carolina coast and much later in the Carolina Piedmont, about 500 B.C. It should be noted that many researchers call the period from about 2500 to 1000 B.C. the Late Archaic because of a perceived continuation of the Archaic lifestyle in spite of the manufacture of pottery. Regardless of terminology, the period from 2000 to 1000 B.C. is well documented on the South Carolina coast and is characterized by Stallings (fiber tempered) pottery (Figure 6).

The subsistence economy during this early period was based primarily on deer hunting and fishing, with supplemental inclusions of small mammals, birds, reptiles, and shellfish. Various calculations of the probable yield of deer, fish, and other food sources identified from some coastal sites indicate that sedentary life was not only possible, but probable. Further inland it seems likely that many Native American groups continued the previous established patterns of band mobility. These frequent moves would allow the groups to take advantage of various seasonal resources, such as shad and sturgeon in the spring, nut masts in the fall, and turkeys during the winter.

Like the Stallings settlement pattern, Thom's Creek sites are found in a variety of environmental zones and take on several forms. Thom's Creek sites are found throughout the South Carolina Coastal Zone, Coastal Plain, and up to the Fall Line. The sites are found into the North Carolina Coastal Plain, but do not appear to extend southward into Georgia.

The Deptford phase, which dates from 1100 B.C. to A.D. 600, is best characterized by fine to coarse andy paste pottery with a check stamped surface treatment. The Deptford settlement pattern involves both coastal and inland sites.

Inland, sites such as 38AK228-W, 38LX5, 38RD60, and 38BM40 indicate the presence of an extensive Deptford occupation on the Fall Line and the Coastal Plain, although sandy, acidic soils preclude statements on the subsistence base (Anderson 1979; Ryan 1972; Trinkley 1978, 1980). These interior or upland Deptford sites, however, are strongly associated with the swamp terrace edge, and this environment is productive not only in nut masts, but also in large mammals such as deer. Perhaps the best data concerning Deptford "base camps" comes from the Lewis-West site (38AK228-W), where evidence of abundant food remains, storage pit features, elaborate material culture, mortuary behavior, and craft

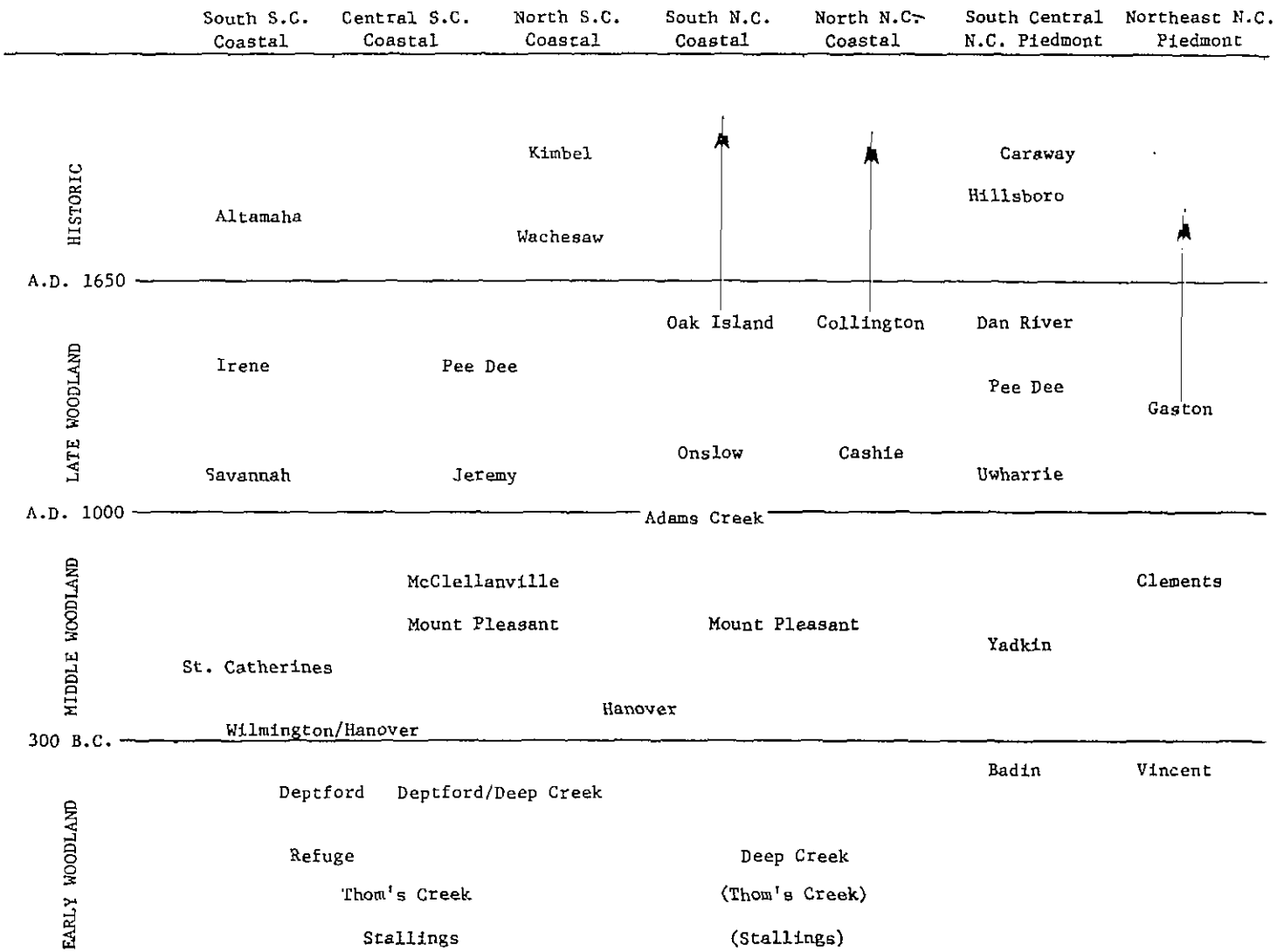

Figure 6. Chronology of the Woodland and Protohistoric Periods in South Carolina.

specialization has been reported (Sassaman et al. 1989:96098).

Yadkin pottery is characterized by crushed quartz temper and cord marked, fabric impressed, and linear check stamped surface treatments. Yadkin ceramics are associated with medium-sized triangular points, although Oliver (1981) suggests that a continuation of the Piedmont Stemmed Tradition to at least A.D. 300 coexisted with this Triangular Tradition. Common early triangular forms include the Badin and Yadkin types. It has been argued that Badin predates the Yadkin type (Coe 1964:45; Oliver 1981), and some stratigraphic support has been found at the Doerschuk site.

In many respects the South Carolina Late Woodland may be characterized as a continuation of previous Middle Woodland cultural assemblages. While outside the Carolinas there were major cultural changes, such as the continued development and elaboration of agriculture, the Carolina groups settled into a lifeway not appreciably different from that observed for the previous 500 to 700 years (cf. Sassaman et al. 1989:14-15). This situation would remain unchanged until the development of the South Appalachian Mississippian complex (see Ferguson 1971).

The South Appalachian Mississippian period, from about A.D. 1100 to A.D. 1640 is the most elaborate level of culture attained by the native inhabitants and is followed by cultural disintegration brought about largely by European disease. The period is characterized by complicated stamped pottery, complex social organization, agriculture, and the construction of temple mounds and ceremonial centers. The earliest coastal phases are named the Savannah and Irene (known as Pee Dee further inland) (A.D. 1200 to 1550).

There is minimal archaeological evidence for historic Indian occupation along the middle Savannah River. DePratter (1988) has recently summarized the historical evidence, and the general locations of a number of towns occupied after 1670 have been identified. Caldwell (1948) found evidence of a post-contact Indian site on the Savannah River in Hampton County which he believes is the early Creek town of Palachacolas. The only other evidence for historic Indian occupations in the Savannah River Valley comes from the upper part of the drainage, where a number of Lower Cherokee Towns were present until late in the eighteenth century (see Caldwell 1956; Kelly and DeBaillou 1960; Kelly and Neitzel 1961).

Historic Synopsis

Research into the early history of the project tract was immediately complicated by the division of the property among several owners and was further compounded by the organization of the available records. In addition, the project area, today in Aiken County, was originally part of Barnwell County, the division not occurring until 1871. This necessitated work in two county records offices. Regardless, it was possible over two days of research in Aiken and Barnwell counties to trace portions of the project area into the Civil War period. It is likely that with considerably greater effort it would be possible to reach at least the Colonial period. The available historical account, while sparse, does succeed in providing some indication of occupation and land use in the project area.

Barnwell District, from which Aiken County would eventually evolve, was formed in 1785 from the Old Orangeburg District. By 1790, there were about 106 individuals listed as living in the Aiken vicinity, holding 141 slaves. While most held either no slaves or only one or two, a few names stand out during this early period as major slave owners -- John Bush with 18 slaves, Elijah Ford with 10, and Hugh Middleton with 20 slaves. One of the earliest Weathersbee's in the area, Lewis, held only three slaves, suggesting a small farming operation (Henderson 1957:6-7).

The area was relatively unscathed by the Revolutionary War, although several skirmishes occurred in what is today Aiken County. Like many other areas of South Carolina there was considerable partisan warfare and the animosities were not soon forgotten (see Lower Savannah Council of Governments 1976).

Barnwell District, in 1800, had a population of 6596 whites and 1690 African American slaves, indicating that the major settlement area was not in what is today the Aiken vicinity. However, by 1820 the population had nearly doubled, to 8162 whites and 6336 slaves (Mills 1972:359 [1826]). Consequently, while the white population had increased by 123%, while the slave population had increased by 374%, indicating an increasing reliance on slave labor, even in this section of the state.

Mills described the agriculture of the district as "cotton, corn, some wheat and rye," although he also mentioned that "the price of provisions is beyond their value, owing to there being no corn raised for sale; therefore the planters will not part with it, but at a high price" (Mills 1972:359-360 [1826]), so it appears that even in the first quarter of the nineteenth century cotton began to have a death grip on the Barnwell/Aiken area. Indeed, Mills singled out the "destructive" system of cultivation. There was also a brief mention that the cotton raised in the area went primarily to Charleston, although some to Savannah, Augusta or Hamburg, suggesting one of the primary problems the area suffered -- inadequate "farm to market" transportation.

This was a critical issue for piedmont farmers, and really no less important to those in the upper coastal plain or sand hills. Overland transportation costs were high. The cost of water transport was lower, but there was still the risk of crops never reaching the market. The issue of transportation eventually affected even the Charleston markets. Between 1819 and 1829 the economy of South Carolina suffered -- the average yearly value of imports declined by over 50%. Further, Charleston merchants began to see more crops either shipped downriver to Savannah as a number of fall line trading centers were established. Charleston factors eventually discovered that they were not essential to the success of the up country.

In an effort to capitalize on the increased cotton production occurring in the up country Hamburg was established to take trade away from Augusta and encourage overland transport to Charleston. This venture, however, had little impact on the overall economy. That same year the Charleston merchants purchased the steamboat company which had been granted a monopoly to operate on the Savannah River. Rather than making Savannah the final stop, they reduced the town to a way-station, with the steamboats eventually arriving at Charleston. This effort was largely successful until the 1824 ruling by the U.S. Supreme County in *Gibbon v. Ogden* which ruled these monopolistic privileges were illegal.

By 1827 a railroad linking Charleston with the profitable cotton producing areas of the up state was a serious idea. It would divert Savannah trade to Charleston and restore Charleston as the central trading facility on the Southeastern shore. On December 17, 1827 a charter was granted to the South Carolina Canal and Railroad Company, with William Aiken and Alexander Black as key figures in the endeavor. The goal of the new company was to establish a railroad from Charleston to Hamburg, allowing cheap and efficient transportation of cotton and goods. By 1833 the venture was completed and the 136 mile Charleston-Hamburg Railroad was born. By 1842 a line was built to Columbia with the town of Branchville at the junction (see Dorn 1983 for additional information).

The town of Aiken is inextricably meshed with the construction of this railroad. Planned as model town, it was incorporated in December 1835, although the county would not be separated from Barnwell until after the Civil War. In 1839 Aiken was almost entirely destroyed by a fire and even as late as 1880 Aiken was described as "a desolate, war-saddened village, lost in the South Carolina

pines and forsaken apparently of God and man" (quoted in Dorn 1983:21). The community of Montmorenci grew up at the cross roads not far from where James Achille de Caradeuc, a French engineer working on the design of the railroad established his homesite (off what is today SR 571). The name comes from the Vale of Montmorenci in France, where Achille went to school.

The earliest account of the project area comes from the deed of 1629 acres to L.C. Duncan from B. Weathersbee, a planter, on June 22, 1863 for $6500 (Barnwell County Clerk of Court, DB PP, p. 203). The two tracts included the 400 acre Wolf (also spelled "Wolfe") Pit and the 1229 acre Mill Tract. A plat for this property is shown in Figure 6, although it unfortunately provides no indication of land use or settlement. It is also difficult to establish its precise orientation since relatively few geographic or cultural features are present. The road which bisects the property appears to represent the approximate location of the modern US 78, historically known as the Charleston Road. This would also have been the location of the South Carolina Railroad and it is unusual that the plat failed to show this right of way through the lands. The "Stage Coach Road" shown at the northern edge of the property is probably modern SC 302, which historically lead to the Pine Log Bridge across the South Edisto River. While the plat fails to show any occupation, this cannot be taken as clear evidence that no settlements existed on either of the two tracts. Weathersbee identification as a planter, rather than perhaps a merchant, would suggest that at least portions of the property might have been cultivated.

Regardless, the new owner, Dr. Langdon.C. Duncan, held the parcel through the Civil War. The Aiken area was largely spared any action during the Civil War. Camp Butler, a receiving center for Confederate volunteers, was situated on the property of James Courtney near Montmorenci, but apparently off the project area (Henderson 1957:18).

In fact, it was not until the end of the Civil War that Aiken came under attack. With the fall of Savannah General O.H. Hill was placed in charge of the Confederate forces in Augusta, where it was thought that Sherman's troops would surely head in order to destroy the vast stores of cotton. By late January 1865 Union forces were rapidly advancing through South Carolina, having taken Pocotaligo on January 14th and breaking the Charleston-Savannah railway for the first time during the war. The Confederate forces established a defensive line near Three Runs in Aiken County, near where the Savannah River Plant site today. The Union forces reached Allendale by the 31st and succeeded in taking Blackville, breaking the Charleston-Hamburg Railroad connection.

Union troops, including the 14th and 20th Corps as well as Major General Hugh Judson Kilpatrick's cavalry, began following the railway line to the west, leading directly to Aiken. By February 10 Kilpatrick's cavalry reached Johnson's Turnout (at what is today Montmorenci), while the Confederate forces hastily established a line about 2 miles east of Aiken. Practicing total war, the country side was pillaged and the railway was destroyed. Kilpatrick remarked in a message to Sherman that "this is splendid country; plenty of forage and supplies" (quoted in Boylston n.d.:8). Efforts to advance through Aiken were foiled by Confederate troops under the command of General Joseph Wheeler. While Aiken was saved, as was the Graniteville cotton mill, and the stores of cotton in Augusta, South Carolina was lost.

Shortly after the war, in 1869, John A. Bowie of Atlanta, Georgia brought a civil suit against Langdon Duncan, owner of the project tract, in the Court of Common Pleas. Unfortunately, the records of this case could not be identified in Barnwell County. As a result of the action, however, the Clerk of Court, William A. Nerland, was directed to sell Duncan's property to satisfy the court judgement and on March 7, 1870 the land was purchased by Bowie for $2261, reflecting the devaluation following the Civil War (Barnwell County Clerk of Court, DB XX, p. 28-32). The tract sold by Nerland had been divided into three parcels, Tract A containing 433 acres, Tract B containing 705 acres, and Tract C containing 445

acres, for a combined total of 1583 acres. Although Wolf Pit and Mill Tract were both referenced, the reduced acreage was apparently the result of a new survey, conducted by S. Mixon and certified on February 5, 1870. This plat, however, could not be identified under the name of Nerland, Bowie, or Duncan.

Five years later, in 1875, Bowie, still shown as an Atlanta resident, sold the 1433 acres (listed as Tracts A, B, and C) to J.A. Walker for a mere $900 (Aiken County RMC, DB C, p. 32). The decline in value, coupled with Bowie's out-of-state residence, suggests that the land had been sitting idle. Unfortunately, it is also impossible to determine what Walker may have done with the parcels, although on May 20, 1879 he sold 350 acres, consisting of portion of the survey tract, to Kate E. Yates for $550, suggesting that land values were slowly beginning to rise (Aiken County RMC, DB E, p. 287). The property was bounded to the south by the South Carolina Railroad, the first mention of this very important landmark.

Yates held the tract just under three years, selling it on April 4, 1882 to John Wigfall for $400, taking a small loss on the purchase price (Aiken County RMC, DB H, p. 194). Curiously, this particular deed offers a partial, and incorrect, derivation, suggesting that the owner and/or Yates was unfamiliar with the tract, perhaps retaining it only for investment or speculative purposes. In spite of the incorrect derivation, this deed continues to reference the southern boundary as the South Carolina Railroad.

Aiken County was formed on March 10, 1871 and officers were installed in 1872. The majority of the territory taken to create Aiken came from Barnwell to the south and Edgefield to the north. This area of South Carolina was slow to "reconstruct;" Aiken was the home of Hamburg Riot and a hotbed of white supremacy, "Red Shirts," and Tillman politics during Reconstruction. The Hamburg Riot, in fact, is often credited with allowing the all-white Democratic ticket of Wade Hampton to defeat the moderate ticket of Governor D.H. Chamberlain.

As late as the 1950s, this period of South Carolina was described by one Aiken historian; "white supremacy was restored forever to South Carolina" and

> the families of this section had an extremely hard time during the war because there were so few slaves in the county . . . . Free, with no means of livelihood, the negro now became the white man's burden. This brought about the practice of share-cropping and renting. The Barnwell section of Aiken County had been short of labor because there were few slaves here, but now the freed negroes in Edgefield and Abbeville Counties were encouraged to come down into this section. This caused the farmers of this section to plant more cotton . . . . Aiken now began to grow more cotton than Edgefield (Henderson 1957:17).

Indeed by 1884, 95% of the farm labor was African American being paid between $10 and $15 a month for 10 hours labor every day and about 85% of the farms were operated by blacks. Even at this early date the county largely consisted of sharecroppers and renters making a marginal living. It was costing about 8¢ a pound to produce cotton selling for maybe 12¢ a pound in a good year. In answer to the question, "Are colored farmers making progress saving money and acquiring land?" a *Charleston News and Courier* survey found the common answer was "Very few," and that most blacks were considered poor farmers ad tenants. This condition was caused not only by the resistance of white Southerners to incorporating blacks into society, but also by the generally poor lands of the Aiken area and the nature of "King Cotton."

The survey property was sold at public auction in 1894 to satisfy a mortgage on the lands, given by Mrs. Agnes A. Kilpatrick of Philadelphia. The tract was purchased by Mrs. Kilpatrick for $5600 (Aiken County Clerk of Court, DB X, p. 208; see also Aiken County Clerk of Court, Mortgage Book I, p. 139 which

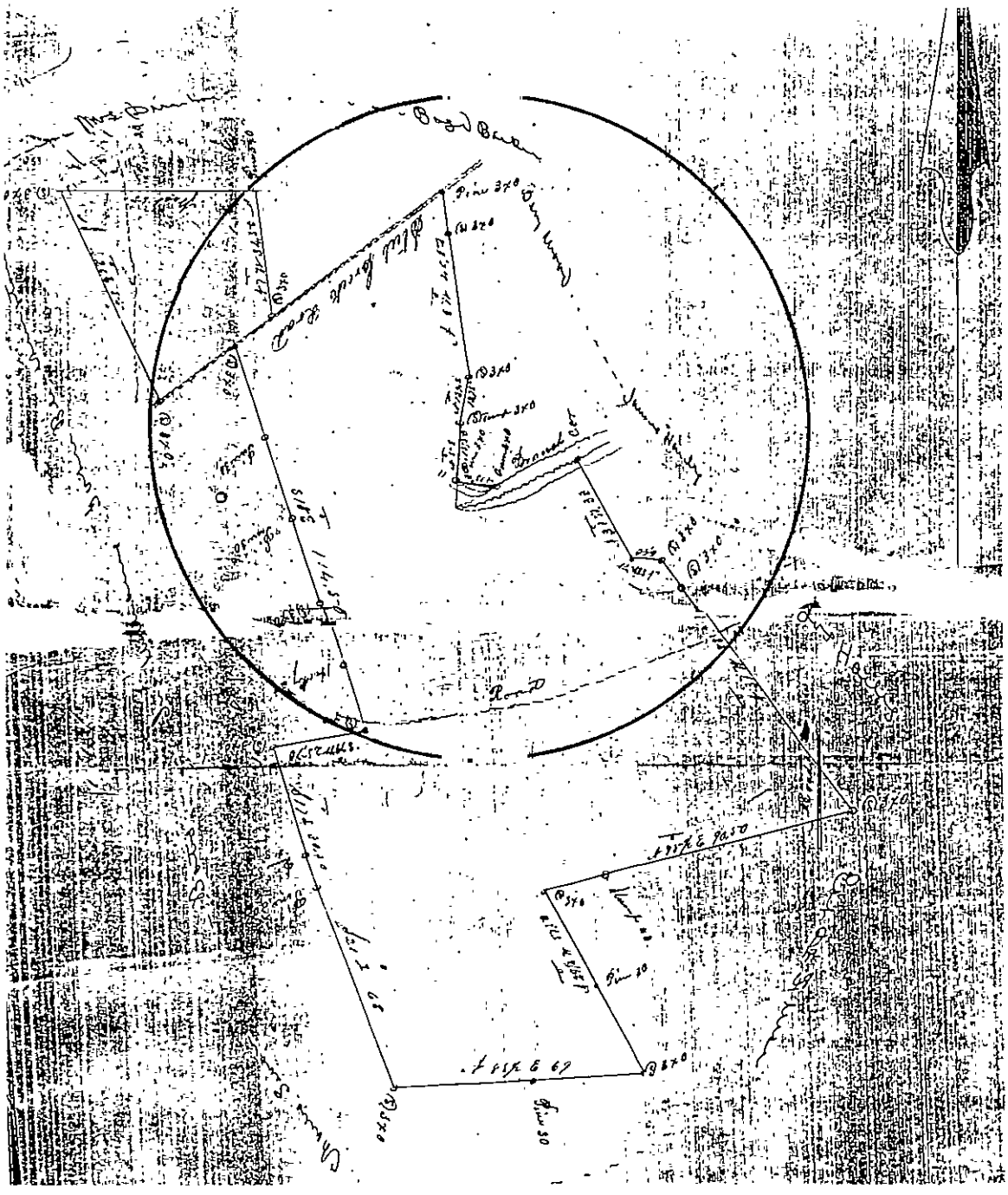

Figure 7. 1863 plat of Wolf Pit and Mill Tract. The approximate location of the survey area is circled.

was unavailable at the time of this research). Mrs. Kilpatrick, still listed as "of Philadelphia," sold the parcel, now listed as 312 acres rather than 350 acres, in 1896 for $6000 to Arthur W. Cushman (Aiken County Clerk of Court, DB Z, p. 49). By this time the recital indicates that surrounding lands were owned by some of the more prestigious of Aiken's citizens, including the Woodward and Taylor families. The southern boundary is still listed as the railroad, although it is now the South Carolina and Georgia Railroad. Just eight days later Arthur Cushman sold three tracts, listed as 133 acres, 48 acres, and 35 acres to Jabez B. Cushman (Aiken County Clerk of Court, DB Z, p. 172). Much of the land was bounded by other tracts owned by Cushman, suggesting that he was amassing a sizeable holding in the last decade of the nineteenth century.

In fact, J.B. Cushman is listed as the Grantee for 17 parcels between 1876 and 1903. These range in size from one acre to a 1500 acre tract in the Upper Three Runs area in deeded in 1890 (Aiken County Clerk of Court, DB k, p. 135; DB T, p. 115). In addition, he acquired 7 lots, primarily in the City of Aiken, during this period.

The Cushman lands were held intact as a major farm perhaps through the last decade of the nineteenth century. The next transaction reveals that upon Cushman's death his estate was partitioned to his children, including Geddings Cushman, Edward Cushman, Mrs. Mary Woodward, Mrs. Ethel Dukes, Mrs. Bessie Lunger, and Eliza Cushman. In 1941 Bessie Lunger was sued by the Farmers and Merchants Bank and Edward S. Croft, Master was ordered to sell 122 acres to satisfy her debts. The property, purchased by the Farmers and Merchants Bank was described as two tracts -- 98 and 23 acres -- allotted in the division of her father's estate (Aiken County Clerk of Court, DB 69, p. 242). The deed also references Aiken County Miscellaneous Book U, pp. 646 and 648, which are plats of the Cushman estate surveyed in 1905 at the direction of the court. Figure 8 shows a 172 acre tract south of the railroad (and outside of the study tract) on

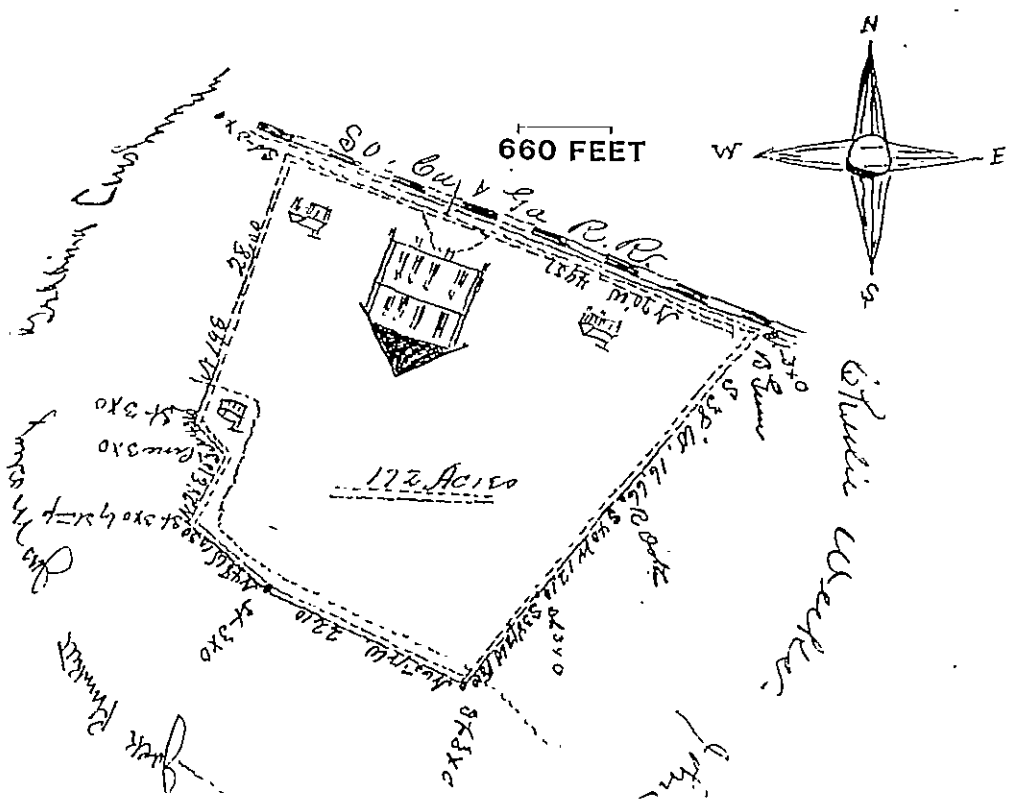

Figure 8. 1905 plat of the Cushman estate south of modern US 78.

which are what appears to be a main house and three smaller, perhaps tenant houses.

Figure 9, however, shows the division of Cushman's lands north of the railroad, representing the southern half of the study tract. The plat indicates that the lands to the north of those shown include the "Est J B Cushman," although they were apparently not partitioned by the court. The southern portion, consisting of 390½ acres, included one large house, eight smaller houses, and a gin house. The presence of the gin and the dispersed pattern of settlement strongly suggests that Cushman was cultivating cotton using tenant labor.

A portion of northern Cushman estate was allotted by the court in 1905 (in re Laura A. Cushman et al. v. Mary Woodward et al.) to Edward Cushman. The two parcels, one 21 acres and the other 97½ acres were deeded by W.M. Jordon, Master on November 4, 1905 (Aiken County Clerk of Court, Master's DB L-1, p. 93). In 1925 the 97½ acre tract was sold by Edward Cushman to Mary C. Cushman (Aiken County Clerk of Court, DB 46, p. 265). The boundaries include lands of Geddings Cushman to the east and Mary Woodward to the west, suggesting that the Cushman property, at least for several decades, remained more-or-less intact, although under multiple ownership.

The history of this portion of the Cushman estate is somewhat clouded, although in 1928 Edward C. Croft, Master, was ordered by the court to sell the lands of Geddings Cushman as a result of claims brought to the court by the Bank of Western Carolina. The property, consisting of 135 3/4 acres was sold to C.L. Weeks (Aiken County Clerk of Court, DB 40, p. 317). This acreage consisted of three tracts "being the farm property of Geddings Cushman" and including a 97½ acre tract with its southern boundary on the railroad.

Even before Weeks acquired the Geddings Cushman tract he had purchased an 88½ acre tract, representing an interior portion of the Mrs. Emeline Barton estate, from L.F. Barton (Aiken County Clerk of Court, DB 35, p. 270). In 1930 A. W. Weeks sold this 88½ acre tract to Charles L. Weeks (Aiken County Clerk of Court, DB 58, p. 359). While no plat has been identified, the recital clearly indicates that the parcel was situated at the northern extreme of the survey boundary, adjacent to the "Stage Coach Road," or what is today SC 302. To the east were additional lands of C.L. Weeks, formerly lands owned by Barton and Geddings Cushman. To the south were additional lands owned by Weeks, while to the west were lands still in the Barton family.

In 1938 C.L. Weeks sold the 278½ acres (representing the northern portion of the survey tract) to Theodore C Weeks, Sr. as trustee for T. Clifton Weeks (the current owner of record - Tax Map 202, Parcel 12) for $10 and "love and affection" (Aiken County Clerk of Court, DB 73, p. 257). During the 1970s portions of the property were used for farming and records in the Aiken County Tax Assessors Office indicate the presence of a "general purpose barn," a "shed," an "open shed," a "metal grainary," and a "shack." The house on the property was built in 1971, damaged by a fire in 1985 and rebuilt in 1986. Today the property consists of 692 acres -- 335 acres of tillable land, 273 acres of timber, and 84 acres of pulp. The Weeks acreage not included in this synopsis includes lands acquired from various Cushmans, indicating that the study tract, as well as much of the surrounding property has a very similar history.

From the early 1900s until the 1930s it appears that tenancy on the property may have begun to decline. The 1938 Aiken County Highway Map (Figure 9) indicates that while two structures are found north of US 78, the bulk of tenant related activities was taking place to the south of the highway. The project area is largely unoccupied.

From the Farmers and Merchants Bank the southern portion of the property found its way to G.K. Toole, Sr., then his wife, Annie Toole, and finally, through the executors to C.L. Woodward in 1944 (Aiken County Clerk of Court, DB

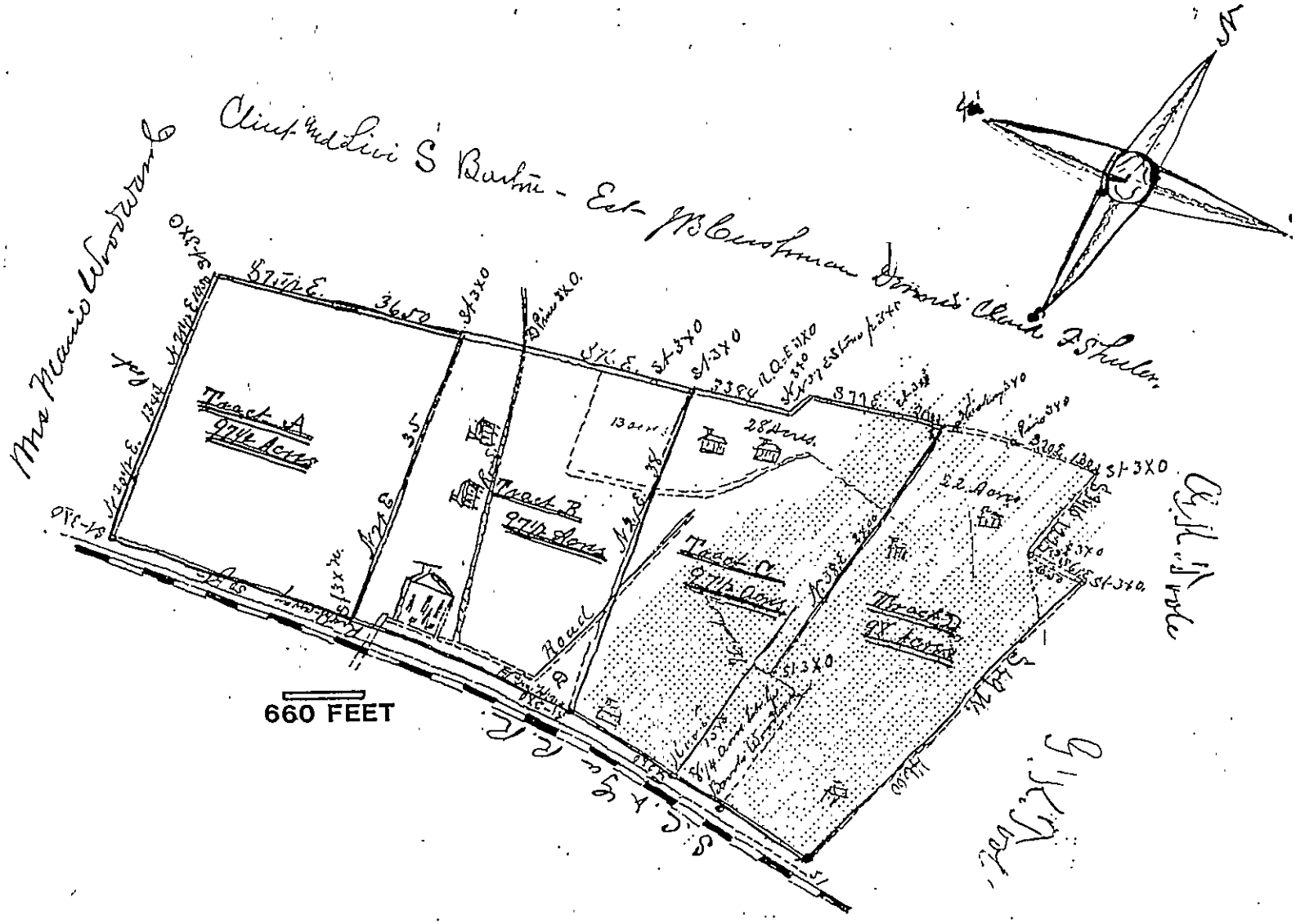

Figure 9. 1905 portion of the Cushman estate north of modern US 78 in the vicinity of the survey area (approximate location highlighted).

84, p. 218). By this time the parcel was 106 acres, bounded to the north by lands of C.L. Weeks, to the east by the estate of Claude Woodward, to the south by U.S. 78 and the railroad, and to the west by lands of C.L. Woodward (formerly lands of Bessie Lunger).

Woodward held the tract until 221½ were sold to the Bank of Greenwood in 1954 to satisfy a debt (Aiken County Clerk of Court, DB 170, p. 136; see also Aiken County Judgement Roll 14,071). A plat of the property indicates that it was situated adjacent to US 78, with Weeks' property to the northeast and west (Aiken County Clerk of Court, Miscellaneous Book 66, p. 118). The bulk of the property had been cultivated in the past and a "farm road" bisected the property on a southwest-northeast line. No structures or other cultural features are shown on the plat.

This tract, as well as several others, was conveyed by the State Bank and Trust (aka Bank of Greenwood) to Mabel W. Johnson in 1955 (Aiken County Clerk of Court, DB 185, p. 151). In 1961 the property was sold to Kenneth L. Flanders and Jane H. Flanders (Aiken County Clerk of Court, DB 241, p. 216), the current owners of record (Tax Map 203, Parcel 1, consisting of 220 acres).

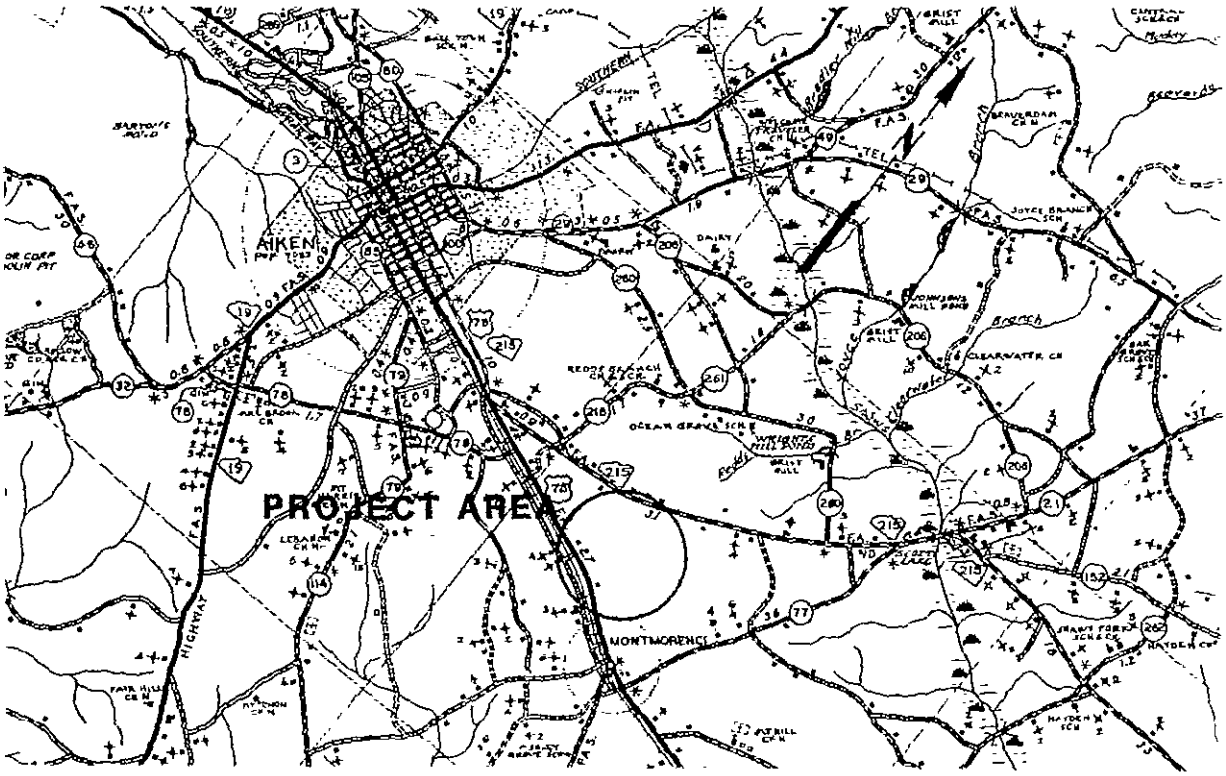

Figure 10. Portion of the 1938 Aiken County Highway Map with the project area circled.

IDENTIFIED ARCHAEOLOGICAL SITES

As a result of the archaeological survey of the RSR facility area tract, nine new sites were identified. In addition, one previously unrecorded standing structure in the vicinity of the tract was identified and assessed (Figure 11). For the purpose of this study, a site was defined as at least two positive shovel tests or at least three surface artifacts within a 25 foot diameter area. There were also a series of six isolated artifacts which were not assigned site numbers.

Standing Structure The previously unrecorded standing structure is situated about 1000 feet east of the facility area on a dirt farm road 800 feet north of US 78 and is identified in this survey as R/03/0000/0051.00. It consists of an abandoned one story, lateral gable wood frame structure set on brick piers. The exterior walls are covered in asphalt roll material and the roof is metal. A one story front facade shed porch is attached. There are two brick chimneys, one for a fireplace and the other a flue for a stove or heater. Windows are single with a 6/6 pane configuration. This structure dates from ca. 1910 and was probably associated with the tenant occupation of the farm during the period of South Carolina's agricultural depression.

It is similar to other structures recorded by Historic Preservation Consultants in 1988 and it is recommended as not eligible for inclusion on the National Register of Historic Places. It is our opinion that adequate documentary and photographic recordation has been achieved and that no further research is necessary on this structure. In addition, the structure is outside the facility area.

Associated with the standing structure is archaeological site 38AK504. This site is situated in the southern fields bordering US 78, outside the facility area. The central UTM coordinates are E440540 N3710280 and the site is at an elevation of approximately 527 feet MSL on Marlboro loamy sands. The surrounding area consists of freshly plowed fields to the east, fallow fields and a dirt road to the west and light undergrowth in the immediate structure area. Overall, at the time of the survey, surface visibility was good with only light vegetation. The site size is estimated, based on the dispersion of surface artifacts, to be approximately 175 feet north-south and 200 feet east-west, centered around the standing structure (R/03/0000/0051.00).

A series of 14 shovel tests were excavated in a cruciform pattern across the site. They indicated a brown (10YR4/2) loamy A horizon about 0.8 foot in depth overlying a brownish-yellow (10YR5/6). Seven of these tests were positive, yielding small quantities of window glass, bottle glass, or whiteware. In addition, a grab collection of selective surface artifacts was also made, primarily from the yard area of the structure. Identified materials include primarily historic remains from the early twentieth century occupation of the structure. There is, however, evidence of occupation through at least the early 1970s. To the west, however, was a very small "concentration" of lithics suggesting a prehistoric component. No diagnostic prehistoric artifacts were recovered.

Artifacts recovered from surface collection and shovel testing include 88 historic ceramics consisting of 50 undecorated whitewares, one banded whiteware, five blue transfer printed whitewares, one green transfer printed whiteware, five handpainted whitewares, two decalcomania whitewares, one red glazed earthenware, two yellow wares, six yellow glazed earthenwares, two blue glazed earthenwares, one burned earthenware, one blue transfer printed pearlware, one polychrome hand painted pearlware, three white porcelains, four black alkaline glazed stonewares,

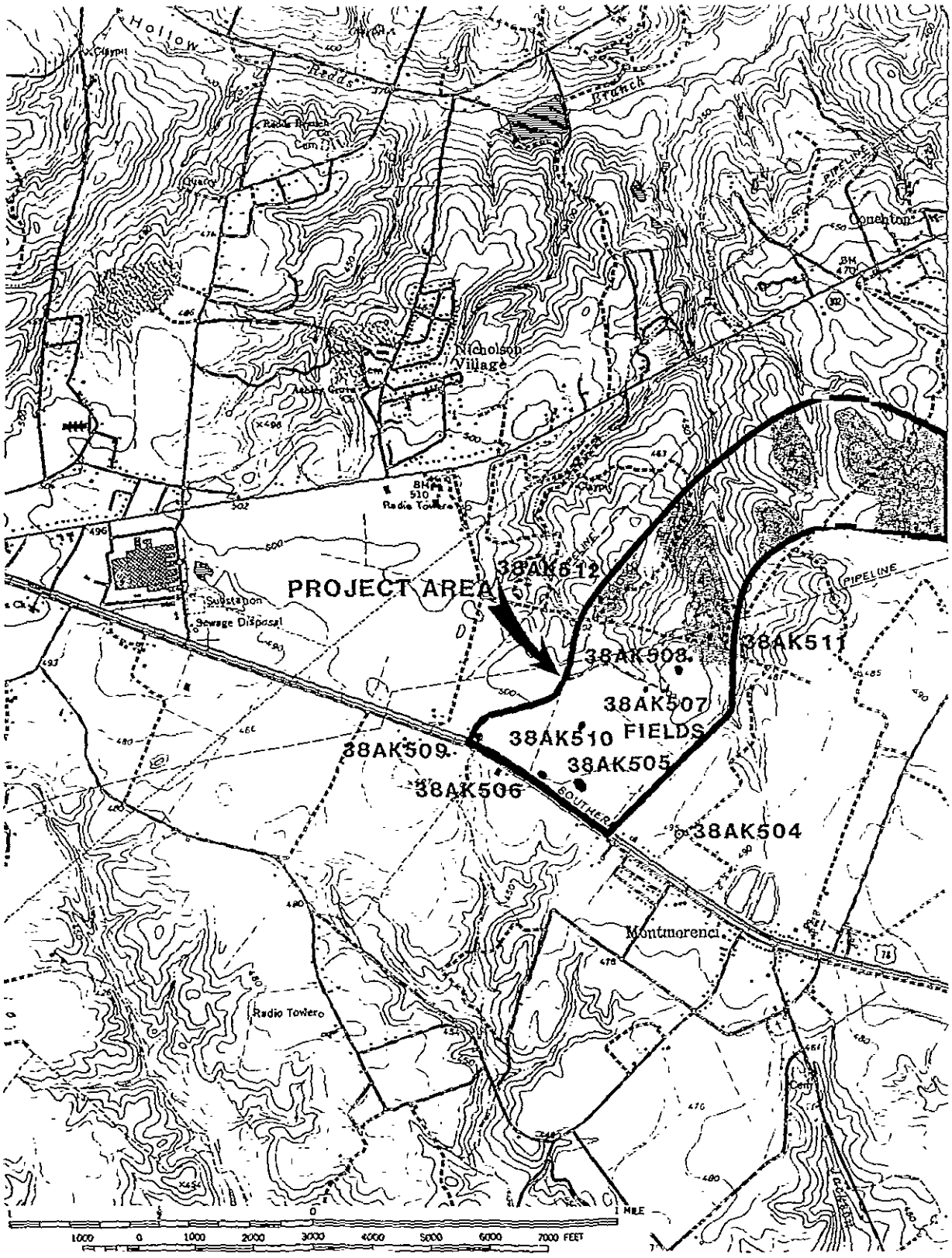

Figure 11. Survey areas and identified sites in the RSR Corporation facility area.

one green alkaline glazed stoneware, and one lustrous brown salt glazed stoneware. One blue transfer printed piece included a maker's mark "Petrus / Regout / MAASTRICHT". This type of ware was manufactured in Holland between 1836 and 1931 (Kovel and Kovel 1986:127).

Other artifacts consist of 20 amethyst glass, 11 cobalt blue glass, four aqua green glass, five aqua blue glass, 22 clear glass, three milk glass, one bright green glass, two brown glass, one teal colored glass, two light green milk glass, four clear silk screened glass, one clear pressed glass tumbler fragment, two porcelain jar sealers, one window glass, one 16d wire nail, one unidentified nail fragment, one brass decorative hinge fragment (for trunk or cabinet), one collar disk insignia, one wheat penny (date illegible), one white, green, and red glass swirl marble, four unidentified plastic fragments, two unidentified iron strips, one piece of copper wire, three quartz non-cortical flakes, three Coastal Plain chert secondary flakes, and six Coastal Plain chert non-cortical flakes. Tables 1 and 2 present the mean ceramic date and the pattern analysis for site 38AK504.

Of special interest is the collar stud insignia. It is made of stamped brass and measures 26 mm in diameter. The design consists of crossed cannons with a ballistic in an oval located in the center. This insignia is associated with the Coast Artillery which separated from the Field Artillery in 1901. Officer and enlisted insignias were identical; however, the insignia were not used on enlisted uniforms until after 1910. This type of insignia was used up until 1926 (Mr. Fred DeMag, personal communication 1993; also see Laframboise 1976).

The artifacts and the mean date of 1884.4 suggest that the site was initially occupied in the late nineteenth century. The two pearlware sherds indicate that the site probably had a separate, much earlier occupation in the first quarter of the nineteenth century. However, the bulk of the materials clearly date to the twentieth century.

The artifact pattern is very similar to those found at other tenant sites. At the Gibson Plantation tract in Florence County eight tenant sites were located which had ranges of 72.9% - 97.6% for the Kitchen Group and 0.0% - 25.5% for the

Table 1.
Mean Ceramic Date for 38AK504

Ceramic	Mean Date (xi)	fi	fi x xi
Porcelain, white	1883	3	5649
NA salt glazed stoneware	1866	1	1866
Pearlware, poly hand painted	1805	1	1805
blue trans printed	1818	2	3636
Whiteware, poly hand painted	1848	5	9240
blue trans printed	1848	4	7392
non-blue trans printed	1848	1	1848
decalcomania	1926	2	3852
annular	1866	1	1866
undecorated	1895	50	94750
"Petrous/Regout"	1879	1	1879
Yellow ware	1890	2	3780
Total		73	137563

MCD = 137563 ÷ 73 = 1884.4

Table 2.
Artifact Pattern for 38AK504

Kitchen Group		
Ceramics	88	
Glass	74	
Tableware	1	
Kitchenware	2	
Kitchen Group Total	165	87.2%
Architecture Group		
Window glass	2	
Wire nails	2	
UID nail fragments	1	
Architecture Group Total	5	2.8%
Furniture Group		
Furniture Hardware	1	
Furniture Group Total	1	0.6%
Clothing Group		
Collar Stud Insignia	1	
Clothing Group Total	1	0.6%
Personal Group		
Coin	1	
Personal Group Total	1	0.6%
Activities Group		
Toys	1	
Other	7	
Activities Group Total	8	4.4%

tecture Group (Trinkley and Adams 1992:81). This site, like the other tenant on the RSR tract, fall within this range.

This site has received very minor damage from plowing. Otherwise, the vast of the tenant related materials are intact. In spite of high site integrity, clarity is very low, given the long, and relatively recent, occupation of ite. This recent occupation has resulted in the earlier occupation being ed" or "swamped" by very recent artifacts of mass production. It is unlikely this site can contribute significant information regarding the period of Carolina's agricultural depression. Likewise, the prehistoric component is diffuse, situated in a plowed area with little integrity. Absent diagnostic acts or the likelihood of intact stratigraphy or features, it is unlikely this component can address any of the major research questions posed for the ct area. Consequently, the archaeological site is, like the standing ture, recommended as not eligible for inclusion on the National Register.

Site 38AK505 is situated about 2000 feet northwest of 38AK504, within the ity area about 250 feet northeast of US 78. The site appears to represent dely scattered twentieth century domestic site with a few commingled storic lithics. The central UTM coordinates are E440172 N3710371. The site tuated on Marlboro loamy sands at an elevation of about 485 feet MSL. The bisected to the north and bounded to the west by field roads, was ified in a freshly plowed field. Surface visibility was excellent and the was initially identified through the pedestrian survey. Based on the rsion of artifacts the site is estimated to about 300 feet north-south by eet east-west.

A series of 16 shovel tests were excavated in a cruciform pattern across

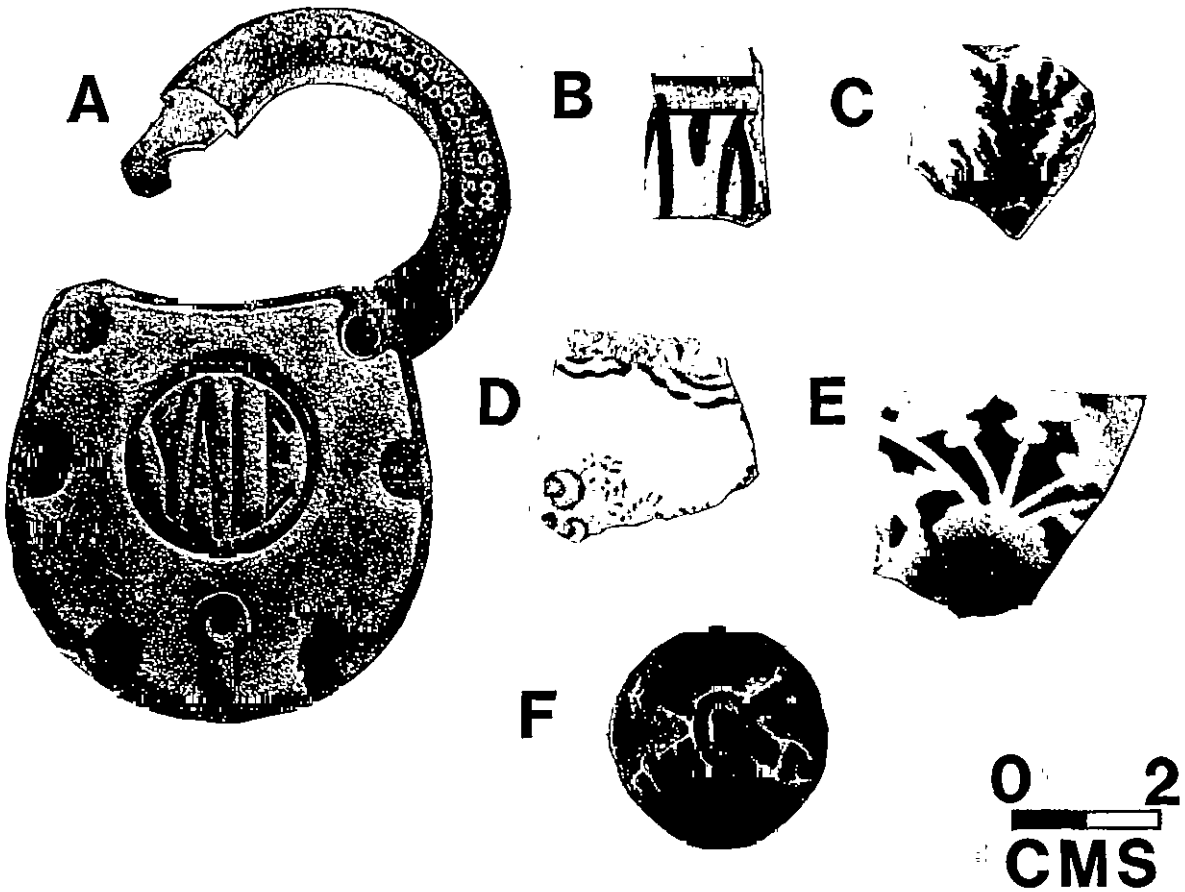

Figure 12. Artifacts recovered from the study tract. A) Yale lock; B) polychrome pearlware; C) mocha whiteware; D) blue transfer-printed whiteware; E) whiteware with machine applied design; F) Coast Artillery collar stud insignia.

the site. Soil profiles similar to those at 38AK504 were identified. In addition a selective grab collection of materials were made from the surface of the site. Seven of the shovel tests revealed a low density of subsurface materials (exclusively glass or sparse brick) and no cultural features were identified.

Artifacts from surface collection and shovel testing include 62 historic ceramics consisting of 45 undecorated whitewares, one annular whiteware, one green transfer printed whiteware, one hand painted whiteware, one yellow ware, one mocha yellow ware, one burned earthenware, one green alkaline glazed stoneware, two brown alkaline glazed stonewares, four white porcelains, and one unidentified white bodied earthenware.

Other artifacts consist of 13 clear glass, 12 aqua glass, five light olive green glass, one dark olive green glass, four amethyst glass, two brown glass, two dark brown glass, two milk glass, one amethyst banded tumbler fragment, three window glass, and eight Coastal Plain chert non-cortical flakes.The mean ceramic date and pattern analysis are presented in Tables 3 and 4. The mean date along with other artifacts suggests a late nineteenth century initial occupation. The artifact pattern shows the site is similar to other tenant sites in the state.

The site core appears to have been dispersed by plowing, indicative of low site integrity. This is coupled with the failure to identify intact subsurface

features, or concentrations of artifacts which might suggest such features. It is unlikely that this site can contribute significant information regarding the early twentieth century patterns of tenancy in the Aiken area and is therefore recommended as not eligible for inclusion on the National Register of Historic

Table 3.
Mean Ceramic Date for 38AK505

Ceramic		Mean Date (xi)	fi	fi x xi
Porcelain,	white	1883	4	7532
Whiteware,	hand painted	1848	1	1848
	non-blue trans printed	1848	1	1848
	annular	1866	1	1866
	undecorated	1895	45	85275
Yellow ware		1890	2	3780
Total			54	102149

MCD = 102149 ÷ 54 = 1891.6

Table 4.
Pattern Analysis for 38AK505

Kitchen Group		
Ceramics	62	
Glass	41	
Tableware	1	
Kitchen Group Total	104	97.2%
Architecture Group		
Window Glass	3	
Architecture Group Total	3	2.8%

Places.

Site 38AK506 is situated immediately adjacent to US 78 within the facility area. The central UTM coordinates are E439805 N3710608. The site was in a fallow field with good visibility at the time of the survey and was found through the pedestrian survey. Based on the surface dispersion of materials, the site measures about 50 feet north-south by 100 feet east west and is bisected by an east-west running ditch in the agricultural field. The soils are Marlboro loamy sands and the site elevation is about 490 feet MSL.

After the initial discovery a series of four shovel tests were placed in the site along the central east-west axis. No materials were recovered from any of the shovel tests, although the surface materials included a sparse collection of glass and ceramics. The shovel tests did indicate profiles similar to those obtained at 38AK504, although the depth of the A horizon was only about 0.7 foot.

Artifacts from surface collection and shovel testing include, 12 undecorated whitewares, two polychrome hand painted whitewares, one brown transfer printed whiteware, one yellow ware, two green alkaline glazed stonewares, 11 clear glass, one bright green glass, and two window glass. Tables 5 and 6 give the mean ceramic date and the pattern analysis.

This site has been badly disturbed by plowing, the construction of the associated ditch, and possibly the various construction episodes of US 78. In addition, the materials recovered and site context seem to suggest a dump, rather than a structure. Regardless, the site is recommended as not eligible for

inclusion on the National Register and no further research is recommended at this site.

Site 38AK507 is a small, sparse scatter of twentieth century artifacts adjacent to a wind break at the north edge of the agricultural fields within the

Table 5.
Mean Ceramic Date for 38AK506

Ceramic		(xi)	fi	fi x xi
Whiteware,	hand painted	1848	2	3696
	non-blue trans printed	1848	1	1848
	undecorated	1895	12	22740
Yellow ware		1890	1	1890
Total			16	30174

MCD = 30174 ÷ 16 = 1885.9

Table 6.
Pattern Analysis for 38AK506

Kitchen Group		
Ceramics	18	
Glass	12	
Kitchen Group Total	30	93.7%
Architecture Group		
Window Glass	2	
Architecture Group Total	2	1.3%

facility area. The central UTM coordinates are E440395 N3711367 and the soils are Marlboro loamy sands. The site is at an elevation of about 500 feet MSL and at the time of the survey the fields were freshly plowed, providing excellent surface visibility. Based on the dispersion of surface materials the site appears to measure about 50 feet in diameter.

After the collection of a selective grab sample of surface materials a series of four shovel tests were excavated bisecting the site from the west to the east. Two tests yielded single fragments of glass and one test produced a very small quantity of brick (although no brick was observed on the surface of the site). The shovel tests revealed an Ap horizon of grayish brown sand (10YR4/2) about 0.7 foot overlying a yellow sand subsoil. None of the tests indicated any intact remains or the presence of a denser (or larger) site than anticipated by the surface scatter.

Only 20 artifacts were recovered from surface collections and shovel tests. They include seven undecorated whitewares (MCD=1895; Bartovics 1981), three aqua glass, two clear glass, two bright green glass, two black glass, one dark brown glass, one amethyst glass, two jar sealer fragments. There was not a sufficient quantity of artifacts to perform a pattern analysis for the site.

This site is recommended as not eligible for inclusion on the National Register. It is unlikely that the materials present, or the site condition, are adequate to address the research questions identified for tenancy during the early to mid-twentieth century.

Site 38AK508 is situated on a knoll at the north edge of the plowed fields in the facility area. The central UTM coordinates are E440579 N3711630 and the site, at an elevation of 500 feet MSL, is situated on Dothan and Troup loamy sands. The area was fallow at the time of the survey and ground cover was

moderately heavy. The site was recognizable based on surface features such as cinder blocks and tin sheets, and the associated clump of trees which are often found associated with tenant sites. About 100 feet to the northeast there is an associated scatter of artifacts, designated Area B.

Area A appears to represent an early to mid twentieth century tenant structure, while Area B may represent a refuse disposal area. Associated with Area A were quantities of glass, ceramics, roofing tin, cinder blocks, barbed wire, and a cinder block well. Based on both the surface dispersion and the associated shovel tests the site is estimated to measure about 300 feet in diameter. Area B measures about 50 feet in diameter.

A series of 15 shovel tests were excavated, primarily at Area A. Small quantities of brick, glass, and ceramics were recovered, all similar to items recovered on the surface. No subsurface features were encountered. The soil profiles revealed an Ap horizon of grayish brown (10YR5/2) sand about 1.0 foot in depth overlying a yellow sand subsoil (10YR5/6).

Recovered from the site were 12 undecorated whitewares (MCD=1895; Bartovics 1981), one yellow glazed earthenware, one blue glazed earthenware, seven clear glass, four amethyst glass, three blue glass, two jar sealers, and one Yale padlock. Stamped on the arm of the lock is "YALE & TOWNE MFG CO, STAMFORD, CONN. U.S.A.".

Although this site does contain at least one cultural feature (the well) and we recognize the importance of tenant sites such as this, 38AK508 is recommended as not eligible for inclusion on the National Register. The artifacts and the current site condition suggest a site with a long occupation, similar to 38AK504, which would have resulted in considerable "swamping" of the early components by the more recent (and more numerous) materials.

Site 38AK509 represents a scatter of mid-twentieth century remains adjacent to US 78 at the southwestern edge of the proposed facility area. The site is bounded to the south by the highway, to the west by a property line and woods, and to the east by a wind row. It was identified on the basis of a pedestrian survey through a fallow field with only light ground cover. Consequently, the estimated site size of 200 feet in diameter is based primarily on the surface dispersion of artifacts. The central UTM coordinates are E439556 N3710818 and the soils are Marlboro loamy sands. The site elevation is approximately 490 feet MSL.

The site was further tested by a series of 12 shovel tests placed in a cruciform pattern across the site. Four of these tests were positive, producing single ceramics, glass fragments, and a nail. No cultural features were identified either on the surface or as a result of the shovel tests. The soil profile revealed a similar plowing pattern to other sites in the area, with an Ap horizon about 0.8 foot in depth. The upper Ap horizon consisted of brown sand (10RY4/2) overlying a yellow (10YR6/8) sand subsoil.

Ceramics recovered from surface collections and shovel tests consist of 46 undecorated whitewares, three decalcomania whitewares, two green transfer printed whitewares, one blue transfer printed whiteware, one polychrome machine stamped whiteware, two burned earthenwares, three blue and white molded earthenware crock fragments, four white porcelains, and one overglazed white porcelain.

Other artifacts consist of eight clear glass, five milk glass, five amethyst glass, two cobalt blue glass, four aqua glass, five bisque porcelain statuette fragments, one glazed redware utility pipe fragment, one piece of coal, and one piece of flat metal.

The mean ceramic date and the pattern analysis is presented in Tables 7 and 8. The ceramics indicate a late nineteenth/early twentieth century occupation and the artifact pattern is similar to other tenant sites.

This site is recommended as not eligible for inclusion on the National Register. The extent of plowing, coupled with the low artifact density and variety, suggests that the site is not able to address any of the substantive questions associated with Sandhills/Coastal Plain tenancy posed for the project area. No further research is recommended.

Table 7.
Mean Ceramic Date for 38AK509

Ceramic		Mean Date (xi)	fi	fi x xi
Porcelain,	white	1883	4	7532
	overglazed white	1883	1	1883
Whiteware,	blue trans printed	1848	1	1848
	non-blue trans printed	1848	2	3696
	decalcomania	1926	3	5778
	undecorated	1895	46	87170
Total			57	107907

MCD = 107907 ÷ 57 = 1893.1

Table 8.
Artifact Pattern for 38AK509

Kitchen Group		
Ceramics	63	
Glass	24	
Total Kitchen Group	87	91.6%
Furniture Group		
Furniture items	5	
Total Furniture Group	5	2.3%
Activities Group		
Other	3	
Total Activities Group	3	3.1%

Site 38AK510 consists of a scatter of early to mid-twentieth century materials and one prehistoric lithic. It is situated in the middle of a large agricultural field at the southern end of the facility area which, at the time of the survey, contained standing cotton stubble. In spite of this ground surface visibility was good and the site was initially discovered as a result of a pedestrian survey. The surrounding soils are Marlboro loamy sands and the site elevation is about 495 feet MSL. The central UTM coordinates are E440160 N3710925. The site was found just east of a farm road running off US 78, about 1500 feet north-northeast of 38AK506 (what appears to be a small trash dump).

Based on a selective grab collection of surface artifacts and the excavation of 11 shovel tests in a cruciform pattern across the site, it appears to measure about 100 feet east-west by 200 feet north-south. Only one of the shovel tests yielded cultural material and no subsurface materials were identified. The surface collection failed to identify any concentration or core site area, although the materials are consistent with a tenant occupation.

Artifacts collected from surface collection and shovel testing consist of 14 undecorated whitewares, two blue transfer printed whitewares, nine clear glass, nine amethyst glass (four belonging to S.C. Dispensary bottles), three aqua glass, three milk glass, two dark brown glass, one cobalt blue glass, one clear pressed glass canister lid fragment, one window glass, one piece of flattened lead, one piece of animal bone, and one Coastal Plain chert side

scraper.

Tables 9 and 10 give the mean ceramic date and the artifact pattern for the site. The mean date suggests late nineteenth/early twentieth century occupation. The artifact pattern is similar to other tenant sites found on the tract and in other parts of South Carolina.

Table 9.
Mean Ceramic Date for 38AK510

Ceramic	Mean Date (xi)	fi	fi x xi
Whiteware, blue trans printed	1848	2	3696
undecorated	1895	14	26530
Total		16	30226

MCD = 30226 ÷ 16 = 1889.1

Table 10.
Artifact Pattern for 38AK510

Kitchen Group		
Ceramics	16	
Glass	27	
Tableware	1	
Total Kitchen Group	44	95.6%
Architecture Group		
Window Glass	1	
Total Architecture Group	1	2.2%
Activities Group		
Other	1	
Total Activities Group	1	2.2%

This site is recommended as not eligible for inclusion on the National Register of Historic Places. The site has been heavily plowed, there is no evidence of artifact concentrations or features, and the materials present are sparse.

Site 38AK511 is situated between the major pipeline clearing crossing the facility area and the northern-most field boundary in an area of mixed pine and hardwoods. Surface visibility was poor and the site was originally identified by transect surveys in Area 5. It includes a scatter of tin items, jars, and other domestic refuse. Surface features include a well, a fieldstone chimney base (which includes fragments of brick), and several stone piers. Abandoned nearby is an old gas stove. The assemblage of artifacts suggests a site dating from the very late nineteenth or early twentieth century through perhaps the 1940s.

The central UTM coordinates are E440720 N3711330. The site is at an elevation of about 490 feet on Troup sands. Based on the dispersion of surface materials and features, as well as additional shovel testing, the site measures 100 feet north-south by 150 feet east-west.

A series of 13 shovel tests were placed around the chimney and well (Figure 10). Six or 46% produced cultural materials. The shovel tests revealed an A horizon of gray-brown sand (10YR15/2) ranging from 0.3 to 0.9 foot overlying a compact reddish-yellow sand (5YR6/8). Table 11 lists the artifacts from surface collection and shovel testing. In addition to the collected artifacts a number of items were observed on the surface. These included 55 gallon drum fragments, tinned 5 gallon buckets, brown Clorox bottles, clear milk bottles, Ball Mason

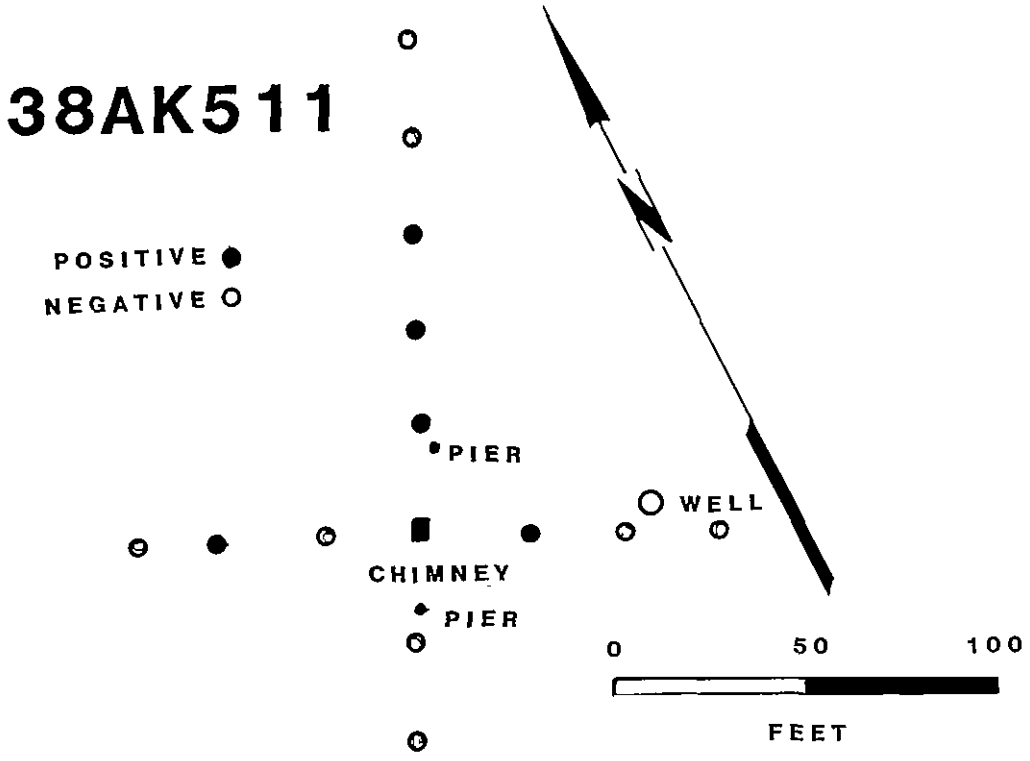

Figure 12. Location of cultural features and shovel tests at 38AK511.

Table 11.
Artifacts from 38AK511

Artifact	Surface	T4ST9	25'S	20'S	25'N	50'N	75'N
Undecorated whiteware				1			
Clear glass			1		2	1	
Aqua glass							1
Blue Noxzema jar	1						
Clear cologne bottle	1						
Pond's cold cream jar	1						
Jar sealer fragments	6						
Zinc canning lid	1						
Wire nails						1	
UID nail fragment					1		
UID iron item		1					
	10	1	1	1	3	2	1

jars, gas stove, cinder blocks, tin can fragments, roofing tin, barrel straps, and bed springs.

An insufficient number of artifacts were collected to perform pattern analysis and the only ceramics recovered was one undecorated whiteware which has an 1895 mean date of manufacture.

This site exhibits very limited disturbances (largely associated with the nearby pipeline construction and has the potential to address significant research questions. It has not been plowed, a situation common to the other, similar, sites recorded during this survey. This degree of integrity may ameliorate concerns over the potentially long duration of occupation at the site. Consequently, the site is recommended as potentially eligible for inclusion on the National Register of Historic Places. Significant research questions involve:

- the status of tenants in an area that has traditionally been considered of marginal agricultural potential -- is there any detectable difference in the material culture remains present at such sites when compared to other tenant sites elsewhere in South Carolina;

- the ability of more specific historic research into areas such as tax records, probate, inventories, and oral history to contribute to the archaeological research -- specifically comparing the historical information to such archaeological variables as ceramic values, faunal remains, and evidence of architectural features with the goal of refining concepts of social stratification in the project area; and

- the potential for such sites to contribute to a greater understanding of refuse disposal practices during the period -- other sites on the survey tract have evidenced discrete "dumps," suggesting that refuse may have been removed from the premises.

To determine whether the site has the potential to address questions related to trash disposal practices and material culture, a series of close interval shovel tests should be excavated in a grid formation across the site. This will determine if spatial information is available and will also better determine the types and variety of artifacts present for status analysis.

If the site is able to address these questions, a multi-pronged investigation should be used including the plotting of surface debris (to augment the shovel tests from the testing phase, assisting in the investigation of refuse disposal practices), block excavations (for recovery of artifact samples), and more detailed historical and oral history research concentrating on this one relatively small area.

Alternatively, of course, the site may be green spaced or permanently set aside from development. This option is discussed in more detail in a following section.

Site 38AK512 is situated on a major ridge on the western boundary of the facility area about 1000 feet east of the major pipeline crossing the project area. The central UTM coordinates are E440215 N3711580 and the site is found on Angie sandy loams at an elevation of 500 feet MSL. Identified during the transect survey of Area 6, a heavily wooded area characterized by pine and mixed hardwoods, the site boundaries of about 50 feet in diameter were established on the basis of the shovel tests.

The site was further examined by 10 shovel tests placed across the site in a cruciform pattern; only one of these tests, however, yielded subsurface remains. The site is otherwise characterized by an accumulation of primarily glass and tin debris, representing a small mid-twentieth century dump site similar to 38AK506. The associated structure, if one is present, is most likely to the west since no remains were found elsewhere in Area 6.

Surface collected from the site was on Coca-Cola bottle which had COLUMBIA, S.C. embossed on the base and "Trade Mark Reg. 6½ oz.". This phrase was used on bottles produced between 1957 and 1965 (Jeter 1987:42). Artifacts recovered from

shovel tests include two undecorated whitewares, nine clear glass, four dark brown glass, one cobalt blue glass, one aqua glass, and one amethyst glass. Undecorated whitewares have an 1895 mean date of manufacture (Bartovics 1981). An insufficient number of artifacts were recovered to perform a pattern analysis.

The site is recommended as not eligible for inclusion on the National Register of Historic Places. The site formation process appears confined to one cultural practice and is relatively recent. It is unlikely that the site can contribute to any of the previously identified research questions. Adequate information concerning the site has been collected during this investigation.

Isolated artifacts were recovered from six locations during the survey. In each case either more intensive pedestrian survey (in the case of plowed field finds) or more intensive shovel testing (in the case of transect surveys) failed to identify related materials. Consequently, these remains are not further considered in this study. These remains consist of one porphorytic rhyolite core, two Coastal Plain chert flakes, one Coastal Plain chert Palmer point, one blue edged whiteware, and one undecorated whiteware. Measurements on the Palmer point fall within the range published by Coe (1964:67). Total length is 28.06 mm, blade length is 24.86 mm, blade width is 19.58 mm, haft width is 15.69 mm, and blade thickness is 5.35 mm.

CONCLUSIONS

The primary goals of this study were to identify and assess the significance of archaeological resources on the RSR Corporation facility tract. As a result of the archaeological survey, nine new archaeological sites were identified, and one standing architectural structure was also recorded. Of these eight of the archaeological sites are recommended as not eligible for inclusion on the National Register and the one standing structure is recommended as not eligible. Consequently, no further investigations are recommended for these sites.

One archaeological site, 38AK511, is recommended as potentially eligible for inclusion on the National Register. It should be emphasized that these are the professional recommendations of Chicora Foundation, based on our field investigations. The final determination of eligibility, however, will be made by the S.C. State Historic Preservation Office in consultation with the lead federal agency.

Secondary goals for this project were to examine the relationship between site location, soil types, and topography expanding on work by Brooks and Crass (1991), Sassaman et al. (1990) and Taylor (1984). In general, prehistoric sites are located on well drained soils close to a water source. For historic sites, South and Hartley (1981) have noted that eighteenth century settlements are located on high ground adjacent to deep water access. This type of landform does not occur anywhere on the tract. On the Pee Dee River, Taylor (1984:196) found that in the nineteenth century the river bluff was abandoned as farmstead, but there was minor occupation by tenant framers. The settlement pattern became more road oriented, being located next to primary or secondary roads. Brooks and Crass (1991:78) found the same pattern to hold true at the Savannah River Plant.

Prehistoric Sites

Of the nine sites identified two (38AK504 and 38AK505) contained prehistoric components. Of these sites, none were recommended as eligible for inclusion on the National Register of Historic Places. Both of these sites consisted of sparse lithic scatters containing no diagnostic artifacts. They are relatively far from water sources with the closest source being an intermittent stream located approximately 2000 feet away. These sites probably represent small lithic working areas.

Two finished tools were recovered as isolated finds. They consist of a Palmer point and a side scraper, both made of Coastal Plain chert. The side scraper was found with the historic component at 38AK510.

Historic Sites

Of the nine sites identified all contained historic components. Of those sites, one (38AK511) was recommended as potentially eligible for inclusion on the National Register of Historic Places.

No historic sites were located which appear to date to the eighteenth century. This is not surprising since sites from this period are not common because of the low population density. When found they tend to be associated either with navigable water (which is absent on or adjacent to the survey tract) or a major road.

38AK504 was the only site with an early nineteenth century component. It contained two fragments of pearlware, although the bulk of occupation appears to

be much later in the late nineteenth/early twentieth century. This site is located approximately 1000 feet east of the project area on a broad ridge of well drained soil about 800 feet from U.S. 78.

All of the historic sites contained late nineteenth/twentieth century components. One of these (38AK511) was recommended as potentially eligible for inclusion on the National Register of Historic Places. All of these sites are located on well drained soils. Sites 38AK504, 38AK505, 38AK506, and 38AK509 are located within 800 feet of U.S. 78. Sites 38AK507, 38AK508, 38AK510, 38AK511, and 38AK512 are located along field or farm roads, much further away from the main road. Apparently, fields were convenient to all tenant settlements. One of these sites (38AK504) consists of a standing structure. It is an abandoned one story, lateral gable wood frame structure set on brick piers.

The southern half of the RSR corporation tract appears to have been favored by twentieth century tenant farmers for its relatively flat well drained soils. The northern portion of the tract, consisting of narrow ridges and steep drainage slopes, was not an area that either prehistoric or historic peoples desired to use; possibly because of its rolling nature.

As previously noted, the artifact patterns produced by the tenant sites on the study tract were very similar to those found on the Gibson Plantation tract in Florence County. At the Gibson Plantation tract eight tenant sites were located which had ranges of 72.9% - 97.6% for the Kitchen Group and 0.0% - 25.5% for the Architecture Group (Trinkley and Adams 1992:81). In Spartanburg County Trinkley and Caballero (1983) found that tenant sites contained an average of 72.3% kitchen related items and 22.1% architecture related items. At the RSR tract, tenant sites had ranges of 87.2% - 97.2% for the Kitchen Group and 0.0% - 2.8% for the Architecture Group. The reason for the relatively high percentage of kitchen group artifacts at the RSR sites is probably because the majority of remains were surface collected.

With the exception of Orser et al. (1987), little extensive archaeological work has been performed at tenant sites, so little is known about the material lifestyle that produced such a pattern. The fact that these sites contain few architectural remains suggests that their housing was relatively insubstantial. It may also a suggest a move to a more "disposable" lifestyle where kitchen related items (such as canning jars) were not as highly curated since they were inexpensive. The large amount of glassware at these sites supports this idea.

Recommendations

The archaeological site (38AK511) recommended as potentially eligible for inclusion on the National Register of Historic Places may be either green spaced or subjected to further testing to determine eligiblility. Green spacing (also termed site avoidance) is recognized as an appropriate, and often cost effective, mitigation measure for conservation of sites found eligible or potentially eligible for inclusion on the National Register. Such green spacing, however, must insure of the permanent protection and integrity of the archaeological data since the goal is to ensure that the site is available for study in the future. The following recommendations are offered if green spacing is a cost-effective and appropriate option:

1. The site area must be blocked out in the field with a buffer sufficient to ensure complete protection of the remains.

2. The site area must be cleared by hand. No heavy equipment may be used and all cut vegetation must be removed from the site area. Special care must be taken to avoid damaging any above ground remains, such as chimney footing, piers, and well.

3. The area must continue to be clearly defined during all phases of

construction and property development. Appropriate techniques include the use of nylon barricade tape, barricade rope, or safety fencing. Typically flagging tape will not last throughout the construction process and flagging of boundary trees fails to provide a clearly visible barrier for construction personnel. No equipment will be allowed in the green spaced area, or be allowed to use the areas as turn-arounds. The areas will not be used to stockpile supplies or be otherwise disturbed. All personnel, including contractor's personnel, should be strictly forbidden from entering the area.

4. Any landscaping in the areas must be conducted by hand and ground disturbance must be limited to the upper 0.2 foot of soil. Above ground mounds of architectural material or debris may not be graded or otherwise displaced. No utilities, including sprinkler lines or shallow electrical cables will be placed through the area.

5. A historic easement or protective covenant protecting the area set aside in green spacing must be developed by the owner of record and this protection must be in perpetuity.

6. Appropriate security must be provided to ensure that no one digs or otherwise disturbs the site.

Green spacing often can be achieved for a particular site if the site area is not on "prime" land and if the development activities have some degree of flexibility. Green spacing provides open space and on some projects can be identified as an amenity. As open, passive parks, historical sites offer tremendous advantages to residential developments. With little additional effort, such sites can also be integrated into the marketing efforts of the development. People tend to be interested in living where historic resources have been treated with sensitivity. People also tend to enjoy living where there is a "sense" of history.

While the current project, as an industrial development, does not meet these criteria, green spacing can nevertheless be used to clearly indicate the good neighbor approach of the company and a serious desire to preserve the community's heritage. Similar benefits, however, can be obtained from data recovery, so the final decision is largely dependent on the flexibility of the design process.

If site 38AK511 cannot be green spaced, archaeological testing can further determine if the site can answer significant research questions. Thes research questions involve:

- the status of tenants in an area that has traditionally been considered of marginal agricultural potential -- is there any detectable difference in the material culture remains present at such sites when compared to other tenant sites elsewhere in South Carolina;

- the ability of more specific historic research into areas such as tax records, probate, inventories, and oral history to contribute to the archaeological research -- specifically comparing the historical information to such archaeological variables as ceramic values, faunal remains, and evidence of architectural features with the goal of refining concepts of social stratification in the project area; and

- the potential for such sites to contribute to a greater understanding of refuse disposal practices during the period -- other sites on the survey tract have evidenced discrete "dumps,"

suggesting that refuse may have been removed from the premises.

To determine whether the site has the potential to address questions related to trash disposal practices and material culture, a series of close interval shovel tests should be excavated in a grid formation across the site. This will determine if spatial information is available and will also better determine the types and variety of artifacts present for status analysis.

If the site is able to address these questions, a multi-pronged investigation should be used for data recovery including the plotting of surface debris (to augment the shovel tests from the testing phase, assisting in the investigation of refuse disposal practices), block excavations (for recovery of artifact samples), and more detailed historical and oral history research concentrating on this one relatively small area.

While unlikely, it is always possible that additional archaeological remains may be encountered in the survey tract during construction. Construction crews should be advised to report any concentrations of brick rubble, obvious artifacts (such as bottles and ceramics), or concentrations of shell to the project engineer, who should report the material to the South Carolina State Historic Preservation Office or to the developer's archaeologist. No construction should take place in the vicinity of these late discoveries until they have been examined by an archaeologist.

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